An Address

ENTITLED

SOME REFLECTIONS, MAINLY ETHICAL, ON THE PRESENT POSITION OF OPERATIONS IN THE PRACTICE OF SURGERY.

Being the Annual Oration of the Medical Society of London, delivered on May 18th, 1903,

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MR. PRESIDENT AND GENTLEMEN,—My first duty is to tender to you, Sir, and to the council of the society my thanks for the compliment which it has been thought right to pay me in the invitation to deliver your annual oration. I must at once confess that I have only been induced to place myself in a position which is so much beyond my province by the feeling that it would be ungracious to decline an invitation which conveys so much.

I am sure that I am right in saying that only those whose experience extends backwards beyond the time when the great work of Lister was made known and its influence upon the work of surgeons generally became manifest, can in any degree truly realise the enormous changes—I might almost say miraculous changes—which followed in the practice of surgery. I am therefore thankful that my medical education commenced before the Listerian era, which, after all, is not so many years ago—a time when septic diseases, like erysipelas, cellulitis, osteomyelitis, and kindred conditions, were common consequences of operations and formed a large proportion of hospital work—a time when the salvation of the patient and the reputation of the surgeon not infrequently depended upon the appearance of the pus which was called laudable—a time at which the author of one of the most successful text-books of the day took the opportunity of congratulating his readers that the science of surgery had advanced so far that but little further progress could be looked for, and when one of the foremost surgeons in London chose as the subject of his presidential address at the Clinical Society, "Pyæmia in Private Practice," and gave many illustrative cases. The practice of surgery in times like those, when the main object was the avoidance of operations because the results were so often disastrous and when an uncomplicated progress after operation was the exception, necessitated an amount of consideration in deciding upon the radical treatment of a case and an alertness in watching and dealing with the subsequent complications which cannot be appreciated by those whose experience has commenced in later times. The complete realisation of the fact that, thanks to Lister's labours, operations could be performed with comparative safety, naturally not only led to the radical treatment of many conditions which hitherto had been allowed to end fatally without any rational attempt to obviate such a result, but ushered in the treatment by operation of innumerable conditions which, whilst not endangering life, were the cause of so much disability in many individuals as materially to diminish the aggregate usefulness of the general community. And as the confidence in the safety of operative methods grew with surgeons generally, the treatment of certain conditions, in themselves harmless at first but possessing potentialities for evil later, became common, and so arose the class of operation which may be called preventive. Finally, there came the utilisation of operations for diagnostic purposes—for example, the opening up and inspection of the abdominal, thoracic, and cranial cavities, leading ultimately to the

APOTHEOSIS OF THE EXPLORATORY OPERATION.

The promise of such enormous benefits from operative treatment which could be used with comparatively small risk was followed by an amount of energy and enthusiasm in the direction of this radical form of treatment and in the invention of operations which came at one time perilously near to the limits of reason and there seemed a danger that the operation influence would reach to the dignity of an obsession—a condition of things which hardly tended to the best interests of surgery. The pendulum has in due course commenced its backward swing and a position has now been reached from which the rational bearings of surgical operations generally may be considered in relation to the risks which they entail, the benefits which are derivable from them, and the limits which legitimately control their application.

In what follows it must be understood that I have little desire to influence and still less to teach; that I am merely giving views and describing impressions which are those of one who during an experience which extends from the time just anterior to the commencement of the period of surgical cleanliness has been carefully watching the progress and general trend of surgical affairs and who, I have reason to believe, enjoys a fair share of operative work in London at the present time and so may be allowed to have some knowledge of the failures as well as of the successes which are necessarily associated with a rather large experience. Speaking generally, I am compelled to say that it seems to me that the tendency towards operative measures, although less than it was a few years since, is still, on the whole, too strong, and that operations are yet approached in too light a spirit, not for the reasons to which I have already referred, but because a prolonged familiarity with them has led to an under-estimation of the risks which they entail and to a forgetfulness of the defective results which, more often than is commonly thought, follow upon them. I am further bound to feel that the present position of things tends far too much to the reduction of the surgeon to the position of the mere mechanic. Indeed, it is not long ago that a surgeon is reported to have said that he considered himself nothing much better than a good carpenter—a statement which was, if I may be respectfully allowed to say so, a greater tribute to his modesty than to his sense of appreciation of the realities of his profession.

THE FOUR STAGES OF SURGICAL LIFE.

The working life of every surgeon may, I venture to think, be divided into three principal stages. In the first, or developmental, stage, the fascination and apparent simplicity of the operative treatment, presenting, as it seems to do, the prospect of a ready road to immediate and conclusive results, are apt to obscure wider and often more important issues in the way that a penny piece, if placed sufficiently near the eye, will obscure the sun. Towards the end of this stage those whose sense of infallibility is not too strong begin, I fancy, to realise the truth of what may be expressed by an ancient classical adage, slightly modified: *Nemo repente fit chirurgus.* At about this time in the evolution of the surgeon the tendency shown rather later to operate less freely and apparently with less energy sometimes leads to the conclusion by those who are yet in the early stage of their development that this is due either to indifference or to an inability to keep abreast of the times, the real factor in the matter, which is the dictate of increasing experience, being overlooked.

In the second stage the gathering of experience and the lessons of some failures and disappointments lead in the majority of men to maturer judgment and a better understanding of the proper relation of things. It is towards the end of this period that the greater number of surgeons begin to be rather less aggressive in the direction of the purely operative treatment and show indications of approaching it with more consideration than hitherto, an attitude which is the result, as I have already said, of increased experience and a more accurate knowledge of the real value of operations as such. It is at this time that a sober retrospect on the part of those whose sense of proportion is sound will, I am confident, recall to mind more instances than one in which an operation performed in all good faith had better, for the good of the patient and perhaps for the reputation of the operator, have been left alone.

With the third stage comes the inclination for the surgeon to confine himself to certain operations with which he feels himself most at home and thus to some extent his practice becomes eclectic. The increase of experience and a maturer judgment at the same time becoming more prominent characteristics he is enabled to exert a far-reaching influence of the greatest value.

There is a fourth stage, of course, in the surgeon's life when, happy in the contemplation of an honourable career well spent, it is to be hoped that he has much money at the bank—a time when, although operations may be things of the

past, there remains that never-failing judgment, the outcome of a vast experience the importance of which it is impossible to over-estimate, although I fear at times it is not altogether appreciated at its full worth by some of us.

OPERATION RISKS IN MORTAL CASES.

I presume that it cannot seriously be contended that any operation can be made absolutely safe, even if it be assumed that the operator is as perfect as an operator can be, for apart from merely accidental risks some account must be taken of the effects of the anæsthetic, the constitutional peculiarities of the patient, the circumstances in which the operation is performed, and the qualities of those who assist in its completion. The risk incurred may be an immediate danger to life, it may be a possibility of leaving a worse condition than existed before the operation, or it may be merely the chance of defective results.

With regard to the danger to life, apart from certain accidental risks which must be connected with all operations, it is clear that in any mortal condition which seems susceptible to relief by operation no risk is too great to run provided that there is a real chance of success, but I do not think that the mere fact that a patient is apparently bound to die unless operated upon is in itself a justification for operation; and operations upon moribund and on semi-pulseless people, save in very exceptional circumstances, seem to me to be mischievous and unscientific, since they cannot, from the nature of things, benefit the patient and they reflect but poorly upon the practice of surgery. The amount of risk which can be justifiably run in these mortal cases depends greatly upon the question as to whether the lesion is due to curable—that is, probably non-malignant—conditions or whether it is caused by malignant disease or by some other incurable state. It is obvious, I suppose, that there is practically no limit, as I have already said, to the risk which may be run in dealing with a curable condition, whilst in a case of malignant disease, for example, in which the operation as a rule may be regarded as palliative, grave consideration should be given to the question of risk before embarking upon a treatment which at the best can probably only lengthen life for a period and may shorten it materially without affording much prospect or possibility of cure. On the other hand, the chance of shortening life by a little time may be legitimately taken when a cure is practically sure if the case turns out to be successful from an operative point of view. In all cases of this type the point of paramount importance is the realisation that the primary object is to save life and not necessarily to perform an ideal operation. I make no doubt that more than one life has been sacrificed by proceeding to the completion of an academic operation which might have been saved by the performance of a less serious proceeding in the first instance. This observation, although it applies generally to a number of cases, such, for example, as extensive disease about the neck and throat, the rectum, and other parts, seems to me to possess especial force in connexion with many of the large growths revealed by abdominal exploration, the risk of removal of which is generally altogether out of proportion to the benefit likely to be derived from the treatment, the mortality in such cases being high, whilst not a few really show no lethal tendency if the disease is left *in situ* after free exposure, and in some the disease finally disappears. Having regard to all the circumstances in cases of this type it appears to me that in the vast majority the proceeding to the extirpation of masses of disease which entails, for example, the taking away of large portions of the great blood vessels or other vital parts is rather an academical demonstration of the possibility of removing a growth than a treatment for the benefit of the patient, especially when it is remembered that, even with our present knowledge, it is practically impossible to say whether a growth is malignant or whether it is not by any other test than its clinical behaviour. The three following cases which have occurred in my practice within the past two years are sufficient to emphasise this fact.

CASE 1.—A boy, 14 years of age, was found to have an apparently malignant growth of the right kidney and surrounding tissues. The vena cava was involved in the disease; many outlying nodules distinct from the main mass existed. One of these was removed and proved after examination to present microscopically all the characters of typical sarcoma. No attempt at removal was made. The whole disease disappeared and the boy is now in the navy.

CASE 2.—A young woman, aged 28 years, had abdominal section performed with the view to the removal of a mass on the left side of the abdomen below the umbilicus which seemed to be connected with the uterus. Upon exposure a large, and so far as could be judged a typical, mass of malignant growth was seen involving the omentum and the uterus, lapping around the left iliac vein and artery, with which it seemed to be inseparably connected. Secondary nodules in large numbers were scattered in the omentum in the immediate neighbourhood. No attempt at removal was made. The whole disease has apparently disappeared and the patient is in good health.

CASE 3.—An abdominal section was made with a view to the removal of a tumour apparently involving the cæcum in a man, aged 48 years. The mass, which involved the cæcum as was expected, had the appearance of malignant disease; it was fixed and extended inwards by a flattened process to the middle line. In this the vena cava was imbedded. No evidence of obstruction had occurred and as the active growth appeared to be in a direction away from the bowel nothing further was done. It is now three months since the operation; the mass is smaller and is steadily decreasing, while the general health of the patient is continuously improving.

I have no doubt that in each of these cases the removal of the disease was mechanically possible, but it is hardly likely that all the patients would be alive now if the completion of ideal operations had been effected.

I mention these cases not because they indicate that completion of ideal operations should not under proper conditions be effected, but because they show clearly enough that even when operation is in progress the result of a case may depend upon much more than the dictates of mere craftsmanship. A more striking instance, perhaps, than any one of these was the case of a nurse who became a patient in St. George's Hospital on account of hæmatemesis in whose abdomen a large mass could be felt which proved, as was believed before laparotomy, to be connected with the stomach. It had upon exposure all the appearances of a large carcinomatous plate involving two-thirds of the anterior and under surface of the organ towards the pyloric end which was involved in the disease and was also adherent to a mass of glands which lay beneath it. The case occurred at about the time when the complete removal of the stomach was under discussion and I should, if the patient's condition had offered any hope of real success, have removed the greater part of the organ. As it was nothing was done; the mass disappeared and the patient resumed her work. I mention this case as it provides an excuse for referring to a remarkable difference existing in the experience of surgeons in malignant, or what seems to be malignant, disease of the pylorus and the parts continuous with it. It happens that my experience of the surgery of the stomach is large, but in all my dealings I have only met with three cases in which I have thought pylorectomy worth performing. The other cases have either been too advanced to justify the treatment or of too doubtful a nature to lead me to think it proper. All these doubtful cases have been treated by gastro-enterostomy, with uniformly good results. In a very striking case, in which several of those present were convinced of the malignancy of the disease and upon which I operated by gastro-enterostomy in 1887, the first case of the kind at St. George's Hospital, the man is alive now and following the occupation of a waiter. Seeing the large number of pylorectomies published by other surgeons in different parts of England it is clear that either my practice differs altogether from theirs or that the cases which come in their sphere of action are of a different kind from those with which I meet. However this may be, I am content with the result of my own experience which emphasises the truth of a dictum for which I have a profound respect and which could be illustrated by endless cases—namely, that when an equally good result is obtainable by two operations, one being distinctly less dangerous than the other, the best practice is to choose the milder method, although for the moment it may appear less brilliant in itself and perhaps less obvious in its immediate result.

SOME EFFECTS OF FAMILIARITY WITH OPERATIONS UPON THEIR USE.

The effects of familiarity with operations in leading to their adoption in a manner which one cannot help feeling is not always quite discriminating are best seen in connexion with the operative treatment of certain conditions which are

dealt with radically, either from the point of view of pure expediency or for preventive purposes—conditions, in fact, in which operation cannot be regarded as actually necessary and in which the proper application of the treatment must therefore depend entirely upon the judgment and experience of the surgeon concerned, the justification for an operation being principally its safety and a certainty, or at all events the strongest possible probability, of the desired result being assured. In many of such cases it cannot, I think, be denied that the operative treatment has with some of us degenerated—I use the word advisedly—into a mere question of routine. And it may be said without reservation that if a treatment becomes a routine method the danger of suppression of individual judgment in connexion with it becomes a reality. For the better understanding of this contention, although many other illustrations could be offered, it is convenient to consider only two conditions which must be more than familiar to all of us—that is to say, disease of the appendix and varix. The removal of the appendix after the occurrence, or recurrence, of certain symptoms may, I presume, without exaggeration be described as a routine practice now with many surgeons. At the same time, it cannot be contended that the removal of the appendix is always called for or that it invariably relieves the symptoms for which the operation has been performed. For the proper application of a treatment which may itself cause death (fatal results do sometimes follow the operation of removal of the appendix even in the quiescent stage), may not relieve the symptoms for which it has been carried out, and is sometimes followed by grave complications such as, for example, extensive thrombosis, must clearly demand an amount of judgment in its application which is altogether incompatible with mere routine. Further, in relation to this matter generally, it seems to me that the habit of frequently operating in any given condition tends automatically to an inclination to over-estimate its gravity. It is, for example, by no means certain that the lethal tendency of recurrent appendicitis is as great as we have come to suppose. Many people live the ordinary span of life without operation who have been the subjects of frequently recurring attacks of appendicitis—a statement which receives considerable interest from the fact that it would be easy to indicate a number of persons in the medical profession who, whilst they are the subjects of recurrent appendicitis, show no great anxiety for operation.

I have said that the removal of the appendix does not always immediately do away with the symptoms for which the operation had been performed. The defective result in these cases depends, it seems, upon the serious implication of the cæcum itself in the disease. It is not so uncommon as is generally supposed for recurrent attacks of symptoms indistinguishable from those which occurred before the removal of the appendix to follow after the operation, either immediately or after an interval, in cases in which the original attacks have followed upon malaria, dysentery, or typhoid fever, the explanation probably being that in such cases the disease is liable to be cæcal in its origin. There have come under my notice cases in which the appendix has been removed for the ordinary symptoms of appendicitis so-called, in which attacks indistinguishable from what is commonly called appendicitis followed after the operation. It is true that after repeated subsequent attacks the symptoms gradually wore themselves out, but so they might have done in the absence of operation altogether. During the late South African war I had a considerable experience of operations in cases of appendicitis in men invalided on that account and of these, three cases in which symptoms arose after dysentery and malaria showed no immediate improvement at all after the operation. In each of these cases the cæcum was at the time of operation seen to be the main seat of disease, the appendix in each, although it could hardly be called normal, was so slightly involved that no stretch of imagination could have saddled it with the cause of the symptoms, and my impression is that in the light of subsequent events these cases would have been as well without operation as with it. It would therefore seem that it might be worth the expenditure of some pains and some time in endeavouring to arrive at a diagnosis without operation between cases in which the cæcum is the original seat of disease and those in which the appendix is primarily at fault, an observation having a practical bearing to which I shall refer for another purpose a little later.

Illustrations of a less debateable kind of the point I have just now in view may be afforded by cases which in themselves have no lethal tendency at all; such, for example, as uncomplicated varix of the lower limbs, which provides a large number of operations at the present time. I know of few conditions which require the exercise of more judgment in arriving at a proper decision as to the desirability of operation than these cases of varix do. The number in which operation is really beneficial is very small in comparison with the number of cases met with; moreover, the size of the veins bears no relation to the necessity for operation, inasmuch as in many of the cases in which the veins are largest operation is altogether unnecessary, and indeed often unjustifiable, mere abnormality having to be distinguished from disease. Setting aside, therefore, such patients as come up for treatment to satisfy the requirements of the public services, the cases of this class in which operation is really indicated are few, save those in which objective trouble, such as pain or rapid increase in size, is present.

Now, the operation for varix in subjects between the ages of 18 and 45 years may in sound subjects be regarded to be as safe as any operation can be and need not therefore in itself be regarded seriously—a fact which, I cannot help feeling, leads to the performance of operations in a certain number of cases of this kind which would not be so treated if the risk of the proceeding were sufficient to lead to a careful consideration of the bearings of the matter. That this is so I am compelled to conclude by the fact that cases come under observation in which operations upon varix of the lower limbs have been carried out for the relief of symptoms undoubtedly due to flat-foot which were subsequently relieved by the ordinary treatment for that affection. And cases from time to time come under notice in which pains resulting from nervous disease have been apparently assumed to be due to extensive varix, which has consequently been operated upon with a view to the radical cure—an error of judgment which might have been avoided if the patellar reflex had been tested. Had the treatment here been of a more dangerous kind I have no doubt that a sufficiently thorough examination would have been made to prevent the performance of operations which were more than unnecessary. It would, if time allowed, be easy to give further illustrations of this kind.

THE SAFETY OF OPERATIONS IN RELATION TO THEIR PERFORMANCE IN CERTAIN CASES.

Going a point further I think it clear that the mere safety of an operation tends to obscure the fact that its results may not be invariably advantageous to the patient, a view which could be supported by fertile examples which would show, in cases in which the condition before operation had given rise to no trouble and in which, in fact, the radical treatment had been carried out for purely expedient or preventive purposes, that the consequences following are sometimes regrettable. The percentage of cases in which unsatisfactory results follow is, of course, impossible to ascertain, but the fact that such results do ensue is clear, because I see in the course of my experience—which I suppose cannot be very different from that of other people—cases in which operations performed by various surgeons are followed by such results. Taking varix again, for example, cases occur in which thrombosis, permanent cold extremity, chronic œdema, and acute neuralgia follow operation in people who previously had suffered no inconvenience at all. As a good example of this sort the last case of the kind which has come under my notice is worthy of mention. The patient was a young girl of a highly sensitive temperament who, being distressed about some slight varix in both lower limbs, contrived to have operative treatment upon the veins, which had previously given no trouble at all, carried out. Thrombosis in both limbs followed the operations and now, months after the treatment, she is only just able to resume her ordinary vocation and it remains to be seen whether further trouble will arise. It would, I presume, be foolish to contend that the operation would have been performed if it had been thought that any risk to life attached to its performance. An interesting point arises here in connexion with the difficulty which presents itself to an operator in determining sometimes whether an operation is finally successful or not, because it is quite certain that a large percentage of those patients whose operations prove in the end unsatisfactory do not return for advice to the surgeon who originally operated; and I have reason to know that instances happen in which the original operator has considered,

and sometimes, indeed, in good faith has recorded, a case as successful which has been under the care of another surgeon subsequently either for further operation or in consequence of unfavourable results following upon the original treatment. It is only a short time since that I heard, quite by chance, that a patient upon whom I had operated, as I thought successfully, had been treated subsequently by another surgeon for the same condition, presumably because my operation had failed to effect the object desired. And I have lately seen a patient who has already been operated upon for the same lesion by two surgeons, each of whom is, I believe, under the belief that the operation performed by him has been successful. Indeed, in this respect there is little doubt that many of us live in something like a fool's paradise, a fact which, in the study of statistics, is not to be regarded altogether with complaisance. It is, at all events, quite certain that the true value of a treatment cannot be estimated upon records of successful cases and it is a welcome and healthy sign when a distinguished surgeon, as happened a short time since, thinks it right to publish a series of unsuccessful results following upon operations of which he has had a large experience. In connexion with this question it is, I suppose, superfluous to insist that a successful operation should be held to mean one which achieves the end for which it is performed, whether that be the saving of life, the relief of pain, or any other object. The description of successful operations followed by the death of the patient has been fully satirised by Dickens and others before him and the matter would not be worth mentioning here were it not that apparently serious mention is sometimes made of cases in which successful operations have been performed without the saving of life or attaining some other end which was the real object of their performance. The use of the term "successful" in connexion with operations in such circumstances seems to me to be a juggling with words which is not quite consistent with the traditions of our profession, and that it should be so used is, I think, further evidence of the way in which the overwhelming importance now attached to operations themselves tends to obscure the more vital points at issue and sometimes, it must be admitted, goes dangerously near to leaving in the background the great truth that in all matters of this kind the interests of the patient and not the mere attaining of a mechanical achievement should be the surgeon's first concern.

THE EXPLORATORY OPERATION.

The results of the free employment of the exploratory operation have, on the whole, been greatly to the advantage of the patient and of the surgeon alike, but, as is the case with many other things, an exploratory operation is not always perfect in its results and, moreover, it cannot be regarded as altogether free from risk. It is sometimes said when discussing the propriety of making an exploratory operation that at all events no harm can come of it if no particular advantage is gained. But is this always the case? I find that within a comparatively short time I have been brought in contact with no less than 16 cases in which persistent troubles—arising, it has been said, after abdominal exploration—have been complained of. 10 of these came under observation on account of troubles connected apparently with the operation. In the others the fact of an exploration having been performed was only discovered accidentally in the course of conversation or in the course of examinations made in connexion with matters apparently unassociated with it. In five of these cases large ventral hernie existed; in three cases persistent pain of an acute kind had followed about the region of the wound; in two there were sinuses; four patients had never been the same since the operation; one had continual incontinence of urine; and one had an ankylosed hip which was stated to have followed upon fever which came on after the operation. Fatal cases are also not unheard of. I have already said in another connexion that results like these in no respect negative the propriety of the exploratory operation as such, but only show that it cannot be regarded always as a trivial proceeding and that it should therefore be undertaken only when it is really necessary and not merely as a routine proceeding. Although the instances of defective results which I have mentioned are confined to the abdomen it would be easy to afford other examples, notably in the case of the knee. In one respect, at all events, it is certain that the very free use of the exploratory operation does not make for the good of surgery. It cannot, I think, be denied that, speaking generally, the estimation in which the art of clinical diagnosis—by which I mean bedside diagnosis as distinguished from that of the operating theatre and the clinical laboratory—is held has declined since the free use of the exploratory operation. This must be patent to any acute observer of surgical affairs generally and it must be especially clear to those who are concerned in examining candidates for the various degrees and diplomas, as they have exceptional facilities for judging of the trend of clinical teaching in the various medical schools. In former times, in consequence of the risk generally involved in any but the simplest of operations, and sometimes even in them, it was essential to strain every faculty of observation to endeavour to arrive at a diagnosis before resorting to operation. Now, on the contrary, when the exploratory operation, which can, as a rule, be carried out with comparative safety, is an immediate means of clearing up a difficult diagnosis there is a disinclination to spend a great amount of time in arriving at a conclusion independently of operation which it is thought may be much more easily attained by exploration. In some respects, apart from any question of risk to life or other consequences, this condition of things is not advantageous, and especially is this the case from the educational point of view, for although, as I have said, the exploratory operation may often be a proper resource in the hands of those sufficiently experienced to appreciate its limitations, to the inexperienced and to the ordinary student its too common use is distinctly harmful, as it frequently leads to any careful attempt to make a non-operative diagnosis being regarded as a waste of time; and, moreover, it sadly depreciates in the minds of the same persons the inestimable value of the education of the eye and hand which is essential for the highly cultured practitioner, and which nothing affords so certain a means of obtaining as the delicate and gentle manipulations which should be inseparably connected with bedside diagnosis. Further, this effect of lowering the standard of bedside diagnosis tends too much, in my opinion, not only to exaggerate the importance of the purely operative aspect of surgery, but to reduce the surgeon to the position of the henchman of the physician, into whose hands the more delicate non-operative diagnosis must, as a matter of course, fall. I am not one of those who think that the present incidence of surgery is to the extermination of the physician—in fact, I believe he will become more and more essential as time goes by. At the same time I am strongly of opinion that it is not the duty of the surgeon to operate at the request of a physician unless he first assures himself that the conditions said to exist are actually present. To do so, it seems to me, is to lose sight of the respect which is due to surgery in the broadest sense. But it is clear that this ideal surgical position is only possible with those who have cultivated to the utmost the power of non-operative diagnosis. The surgeon is in this respect, in my opinion, a physician and something more. Be this as it may, I feel strongly that the performance of the exploratory operation as a mere routine treatment is to be regarded with apprehension, since it tends to the idea that the most careful attempts at arriving at a diagnosis without operation are unnecessary and so conduces to minimising the value of the cultivation of judgment in surgery—a deplorable thing, since judgment is the enemy of routine and routine is the bane of surgery. The exercise of the highest degree of astuteness in diagnosis is, indeed, often necessary before determining upon an exploratory operation. Operations, for example, on the abdomen when the lesion has been in the thorax are not unknown. It is only a short time since that I was called to a case with a view to operating for ruptured gut after a severe injury, in which it was only possible, upon the most careful examination, to determine without operation that the lesion was thoracic and not abdominal, a conclusion which not only negatived the propriety of operating, but probably saved the patient's life, as an abdominal exploration in the degree of collapse which was present must have almost certainly ended in death.

SOME EFFECTS OF OPERATIONS UPON HOSPITAL WORK; METHODS OF OPERATING; AND THE ATTITUDE OF THE PUBLIC.

The effect of the tendency to regard operations as the main end of surgery has led to a complete change in the course of the last 20 years or thereabouts in the class of cases admitted into the surgical wards of the large hospitals

of London, so much so that I believe that I am right in saying that, with the exception of accidents, the admission of patients in the ordinary way whose diseases do not offer a prospect of cure by operation is comparatively uncommon. All possible credit having been allowed to the extensive applicability of the operative treatment, I think that the exclusion of cases unsuitable for operation inflicts a hardship upon many patients and is bad for medical education generally. It would be interesting to know what becomes now of cases which were formerly admitted as a matter of course into the general hospitals, such as early tuberculous disease of joints, diseases of the spine, and many other conditions in which operation is not likely to be called for. It is at all events quite certain that there is no very great opportunity for the study in the surgical wards of the majority of our hospitals of cases which are outside the sphere of probable operation; and I am strongly of opinion that in every hospital a definite number of beds should be set aside for the exclusive benefit of patients suffering from conditions which, whilst curable, are not necessarily so by operation only.

An interesting matter in connexion with the details of operations themselves is the ignorance of the majority of us as to the methods used by other surgeons. This is the result of our seeing little or nothing of each other's work. That this should be so cannot be otherwise than unfortunate, although it is difficult to see the remedy in these times of rush and overwork. I am, however, sure that if we could each of us devote a certain time to watching the way in which operations are conducted by others educated in a different school we should all obtain a wider grasp of methods generally, greatly to the gain of surgery and to our own advantage. As it is, each man learns by experience the method by which he can himself most surely achieve in any given case the desired end; the methods of each surgeon, in fact, gradually become stereotyped which in some instances, unless I am deceived in my impression, leads to some intolerance with regard to the practice of others, since there is an inclination sometimes on the part of a surgeon to regard operations performed by any method other than his own as inefficient or unsuitable, failing to realise, by reason of his insulation, that what he can effect by one plan another operator can do as well, or perhaps better, by some other method. The greatest evil, however, of this condition of things is the fostering of routine operations in consequence of the assumption by some people, because they have no means of checking the view, that for a given condition only one operation is really effective, that being, of course, the one they are in the habit of using themselves, a position which rarely if ever bears the test of actual work. In suturing the abdominal wall, for example, there are three main methods, each of which is used exclusively by different surgeons because they have come to think that only one is a perfect plan; yet there have come recently under my notice examples of large ventral hernia following the use of each of these methods, two examples being in the same patient. Many other instances could, if it were necessary, be quoted.

It is, I believe, safe to say that one of the most remarkable of psychological problems at the present time is the attitude of the public generally towards surgical operations, a problem offering difficulties in its solution second only to those presented by the mystery of radium, for whilst in the majority of instances the dread felt in connexion with the truly necessary operation is so great that it is, I believe, a factor to be reckoned with in deciding upon operations of this kind unless a successful result is practically certain, in cases of expediency and unnecessary operations it is often, unless my experience differs from that of other surgeons, extremely difficult to make people believe that operation is not altogether desirable. It is, in fact, sometimes not a question of advising an operation but of declining to accede to a request for its performance. The reason for such a curious state of affairs is difficult to explain. Whatever the explanation may be there is no doubt that a heavy responsibility falls upon the surgeon in the matter, which is considerably increased by the fact that it indicates such absolute confidence in the integrity of the medical profession. The truth, I suppose, is that the public have an altogether exalted idea of what can really be effected by operation and have only the vaguest idea of what an operation really means. In respect to this attitude it cannot be too fully understood that no amount of anxiety on the part of the person to undergo an operation can absolve the surgeon of one atom of his responsibility in regard to its result—a point which, I fancy, is not always quite sufficiently considered.

A FORECAST AND CONCLUSION.

Nothing that I have already said must be held to mean that I under-estimate the value of operations as such, for no one has a higher appreciation of the immense benefit which is derivable from them and no one can be more ready, or, indeed, more anxious, to employ them in proper circumstances, but I admit that a feeling of apprehension arises in my mind when I regard the inclination which undoubtedly exists at present to consider the operative treatment as the alpha and omega of surgery, an attitude which must not only, as has already been said, end in the reduction of the surgeon to the grade of a mere mechanic, from which he is as far removed as a highly sentient human machine can be from an automaton, but distinctly, in my judgment, stands in the way of progress to better things. It behoves us, and it behoves us well, to bear in mind a fact to which allusion is less frequently made now than formerly—that operations, however perfect in themselves and in their results, are, excepting those rendered necessary by injury and in some cases of deformity and senile charge, in truth a reproach to us as a profession, inasmuch as they afford clear evidence of our failure, even at the present time, to obviate the occurrence of the diseases and the conditions which render operation necessary. By allowing the influence of the operative treatment to be too great it seems to me that there is more and more danger of the great importance of preventive measures against disease being lost sight of. In fact, the conception and carrying out of a great operation are liable to conceal the importance of the initial defect which leads to the necessity for its performance. May I give a gross and commonplace example to illustrate clearly what I mean? Cancer of the tongue, setting aside any question as to what may be the factor in the origin of cancer itself, is undoubtedly set alight by one or more of the many irritations, most of them preventable, to which the organ is constantly exposed. But how much time and trouble are taken in preventing these local causes? In other words, how much thought is given to the preventive hygiene of the mouth compared with that which is expended upon the conception of elaborate operative measures for the removal of already existing cancer and upon a consideration of their effective application? The answer will be found to the question by a reference to the ordinary educational works on surgery. Cancer, tubercle, and the results of venereal disease, of which cancer is of course sometimes one, provide a very large proportion of cases requiring operations. The prevention of tubercle or its treatment in the early stages will before long, there is reason to believe, eliminate the necessity for its treatment by operation, and although we at present grope in the dark with regard to cancer, the discovery of the secret of its origin, which is only a matter of time and may come at any moment, perhaps from a least expected quarter, will assuredly lead to its treatment by other means than operation. With increasing sense in the community at large it is to be hoped that an antidote may be found to the sickly sentimentality which stands in the way of the practical extirpation of venereal disease. Apart from these considerations the means for the treatment of disease which tend to reduce the scope of mere operative measures are increasing. Of these the most potent is afforded by certain of the higher physical forces, which are slowly but surely encroaching upon the domain which has hitherto been subject solely to the rule of the surgeon. A comprehensive view of the matter generally as it stands justifies, I believe, a forecast that ere many decades have passed away the operating surgeon as we know him will be a far less imposing figure in the medical landscape than he now is, and that operations, excepting in the restricted degree which I have mentioned, may be looked upon with as little favour as suppuration is regarded by us now. In the meantime, taking things as they are, it is well that we should beware lest a single predominant factor should be allowed to lead to our regarding through a small tube only a subject the horizon of which is absolutely unlimited. It has been said that the basis of surgery is handicraft, and this, in a sense, is true; but surely it is a truth only half told, for apart from the issues to which I have referred there is lying behind a far greater thing, the knowledge of when to apply that craftsmanship of which everyone who now aspires to the practice of surgery should make himself a master. Nothing that has happened

in the improvements connected with the practice of our art justifies, so far as I know, the modification by one iota of the edict of the great surgeon who, before advancing science had robbed operations of most of their horror, said, "The all-important thing is not the skill with which you use the knife but the judgment with which you discern whether its employment is necessary or not." In other words, those who attach too much importance to mere mechanical dexterity not only fail to reach the high-water mark of greatness but entirely lose sight of the grand possibilities of their calling.

Gentlemen, I have done. Rousseau once said that people are happy in proportion first to their virtue and then to their independence. Being but poorly endowed with the former, such happiness as I have enjoyed has been mainly due to the latter. If, therefore, the spirit of independence has led me to express views to-night with which the feelings of any of those present are not in tune I must crave indulgence upon the ground that my intentions have at least been good.

A Lecture
ON
THE TONGUE IN DISEASE.[1]

Delivered at the Medical Graduates' College and Polyclinic on April 30th, 1903,

BY W. HOWSHIP DICKINSON, M.D. CANTAB., F.R.C.P. LOND.,

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GENTLEMEN,—The tongue is a remarkable organ, instructive in a double sense: it not only reveals the mind of man but also his health. As an index of health it may be said to be always truthful, whatever may be the case when it acts as an exponent of thought. My only concern at present is with regard to what we must take to be an accidental or secondary purpose of the tongue as a means of declaring the state of health of the person to whom it belongs.

The tongue has received attention in this respect from the time of Hippocrates until now. A vast amount of experience has accumulated with but little understanding, and until recently little attempt has been made to analyse its teachings or to reduce to their essentials the changes which it presents in disease not proper to itself. Many are the secrets which are incompletely revealed or imperfectly hidden upon its complicated but apparently simple surface. Upon this have been expended much vain imagination and some mischievous dogmatism and with it has been connected much empirical, but not always erroneous, practice. Mysterious sympathy has been supposed to exist between the tongue and the rest of the alimentary canal; as if by looking at one it were possible to discern the state of the other; as if it were the rule for the whole of this channel with its many differences of structure and purpose to share the same pathological state so that a small exposed portion could be taken as a fair sample of the whole. I can remember the time, and it is not quite past yet, when a white tongue was looked upon as a sure sign that "the stomach was out of order" and a dose of calomel or grey powder was inevitable. Such a simple rule is of the greatest service to the practitioner, for it enables him to display himself as a man of prompt discernment and ready execution. It is true that it is erroneous, consistent neither with sound pathology nor sound practice, but it is what may be called a working hypothesis, it points out something to be done.

Before a society of medical graduates it would be impertinence to describe the normal state of the tongue; suffice it to say that this is an average, not an absolute, condition and varies much in different individuals. The essential part of the tongue as an index of health is its voluminous and complicated epithelial clothing which may be superabundant, deficient, or partially absent; which may present many varieties of hypertrophy and atrophy; which may be moist or dry, conditions to which great importance attaches; which may expose its own surface however altered by disease, or may, particularly when the tongue is dry, show one which does not properly belong to it but is largely made up of vegetable growths and miscellaneous matters.

Of the morbid conditions of system, or at large, which bring about the alterations of the tongue which are significant of disease the most important is the absence or deficiency of saliva, for this must be regarded as a failure not limited to the salivary glands, but in all probability shared by other of the digestive juices. Boerhaave seems to have seen something of what was little noticed or little expressed by others—the importance of the saliva in relation to health and dryness of the tongue. "The saliva," he says, "continually flows into the mouth of a person in health and nothing is a surer sign to a physician of disease in a patient than his having a dry mouth." Ancient superstition attached mysterious virtues to the spittle. Without giving it more credit than it deserves we may fairly attribute importance to it as one of the glandular products concerned in digestion which, if any harmony or common consent exist among them, may speak for others beside itself. It is the absence of saliva which, as a rule, occasions dryness of the tongue.[1] Too much weight in this respect has been attached to breathing through the mouth during sleep and otherwise; dryness thus occasioned is incomplete and evanescent. Persistent and considerable dryness of the tongue implies, as a rule, want of saliva; it is this that gives to the dry tongue the clinical importance which belongs to it. The lack of saliva with the dry tongue is familiarly declared by the loss of the power of spitting; the patient has not the wherewithal. He may squeeze out with difficulty a drop or too of thick ill-coloured fluid, perhaps blood-stained, more mucus than anything else, but proper spittle has he none. The same want of saliva is declared by the results of catheterisation of the parotid duct. In health, if a suitable small tube be inserted into this duct where it opens into the mouth, and a little acetic acid be put upon the tongue, saliva will be seen to issue from the gland pretty freely. With the dry tongue little or none, probably none, can be got. Dryness of the tongue therefore indicates lack of saliva; if not in itself a vital deficiency probably a sign of one. I have made a great many observations to this end with the same conclusion—namely, that dryness of the tongue means suppression of saliva. In these observations I am glad to acknowledge the help which I received from my former house physician and present colleague, Dr. Cyril Ogle.

Dryness of the tongue, or in other words suppression of saliva, may, of course, be temporary and unimportant as when the tongue cleaves to the roof of the mouth from mental emotion, but when lasting it implies a grave constitutional failure. Absence of saliva not only produces the various phases of the dry tongue, to which I shall presently advert, but is connected with that very ominous variety of it where the epithelial protection is deficient, the tongue is red and bare, and raw beef a familiar comparison. The lingual epithelium is nourished, as we know, by the blood, not by the saliva; but there is reason to believe that the presence of saliva, by the moisture which it provides, is necessary to its proper growth.

Perhaps the constitutional influence next in importance as telling on the tongue is pyrexia or increased heat of body and breath. We are told by physiologists that cell growth increases with the temperature up to about 104° F. and that it diminishes as it passes this point. The overgrowth of epithelium thus occasioned is the chief, though not the only, agent in coating the tongue in recent and acute disease. Every degree of abnormal heat up to a certain point is indicated, at least in recent and acute disease, by abnormal proliferation and fur. We may regard the mouth as a hot-house for the cultivation of epithelium and the tongue as a thermometer on which every degree of extra heat, up to a certain point, is registered by the coat which it produces. The white tongue of acute febrile disease, which looks as if some white plaster, perhaps white lead, had been spread upon it with care so as to come up to, but not to encroach upon, the edges, is one of the most significant signs of disease which can be presented to the physician.

Another influence bearing on the tongue is a local and even mechanical one, want of friction, scour, and wash, which goes with failure in the process of eating and deficiency of saliva. The part played by want of wear and

[1] I have dealt with this subject at more length in the Lumleian Lectures, published by Longmans in 1868, entitled "The Tongue as an Indication in Disease."

wash has been exaggerated until it has been presented as the most important of all the agencies which coat the tongue. It will be shown, however, that this plays but a secondary part. The coating of recent and acute disease consists essentially of elongated epithelium, not so much unworn as overgrown, to which adventitious matters add comparatively little. In some forms of chronic disease, however, when under great prostration and suppression of saliva, the mouth probably habitually open, food save in a liquid form impossible, and speech in abeyance, the tongue like old John of Gaunt's, "a stringless instrument"—in such circumstances a vast rubbish-heap may accumulate on this now useless organ consisting of vegetable growths, detached epithelium, débris of food, and accidental matters. This may form a dry crust of extraordinary bulk, not a part of the tongue but a super-addition to it. I have even known such a crust to break off and to look like a cinder, so dry and black and brittle was it.

These influences, want of saliva, pyrexia, and disuse, to which may be added inflammatory or congestive states of the tongue itself such as occur with the strawberry-tongue of scarlet fever and some other conditions, are the chief immediate or direct causes which produce the states of tongue which we recognise as signs of disease. If we were to go behind these and to take account of the remote or indirect causes, the underlying agencies which coat, incrust, and denude the tongue, so numerous and so various should we find them that we should be at a loss to enumerate and to arrange. We should find among them a multitude of disorders, mostly febrile, where some special poison or constitutional infection, either home-made or of foreign manufacture, generally foreign, was recognised or presumed to exist. This would include the specific fevers and many other febrile states which are not so regarded. One obvious intermediary in these cases is pyrexia. There may be a poison in the blood, but this appears to act on the tongue rather indirectly, by way of pyrexia, suppression of saliva, and loss of appetite, than directly. The same intermediaries are concerned in producing the tongue of pneumonia and of other febrile conditions connected with acute inflammation. We should find also many conditions to which such terms are applied as "prostration," "vital failure," and "failure of nutrition," some connected with exhausting discharges and generally, but not invariably, associated with febrile action. All these bring complicated influences to bear upon the tongue—heat, disuse, and lack of saliva; but the greatest of these is lack of saliva.

With this preface I will proceed to sketch in bare and scanty outline the several changes in the tongue which may be called *symptomatic*—the results, that is, of diseases not proper to itself. I shall first refer to the changes in external appearance, taking these as the natural bases of classification. I shall then with the help of the microscope show something of the essential alterations upon which the obvious changes depend and before taking leave of each tongue I shall broadly indicate the constitutional conditions with which it is associated. This brings us to the clinical indications of the tongue, the practical importance of which can scarcely be over-rated. It may, indeed, be said with truth that in many phases of disease the tongue is more significant than anything else which the human economy exposes to view or presents in any way to our senses. It does not point out the site of the disease but it gives a shrewd hint as to its nature; it displays in a comprehensive sum-total its effects upon the system and shows at a glance what the most elaborate examination, otherwise directed, might fail to reveal. The tendency to death which, according to an old saying, it should be our endeavour to obviate may often be discerned by the state of the tongue, which may display upon its surface a request for support and stimulant none the less intelligible because inarticulate. The tongue often shows at a glance to the eye of experience whether the patient is approaching health or departing from it; whether he is getting well or going the other way; whether, in short, the coat is in the act of increasing or diminishing, and if diminishing whether it is diminishing healthily or is stripping to a morbid nakedness. Much depends on whether the coat shelves kindly off from the edges, gradually uncovering a moist and healthy surface, or breaks away in flakes, giving to view one which is neither.

The symptomatic changes in the tongue may be traced through successive steps of addition and subtraction. We may follow coat and crust to their maximum of accumulation and then become witnesses of the contrary process until the abnormal covering is removed, much of the normal covering swept away, and even structures beneath the epithelium in part exposed. The first stage of increase or investment, one but little removed from the state of health, is one to which such terms as

DOTTED OR STIPPLED

may be applied. This is characterised by a trifling excess of epithelium on the papillæ either from overgrowth or insufficient removal—not enough to cover the tongue continuously but to besprinkle it with white specks which in the language of small-pox are discrete, not confluent. We see in this condition the first departure from health or it may occur as a matter of personal peculiarity without any. So far as it is morbid it has more to do with disuse than with anything else. It does not bear witness to any constitutional disturbance but rather to its absence, though it may concur with any local disease which has not as yet gravely involved the system. It is necessarily of more serious import when dry than when moist. The average body-heat in 42 cases which displayed this tongue was 98·5°.

THE COATED OR LOADED TONGUE.

The next stage of acquirement is when the intervals between the papillæ are filled up and a continuous coat is presented. This is an exaggeration of the former state chiefly in superabundance of epithelium whether by way of putting too much on or taking too little off, or by both processes combined, as they so often are when pyrexia is associated with want of appetite. The pyrexia stimulates the growth of epithelium, the want of appetite reduces the wear. The white coated tongue, as yet moist, is too well known to need description. It succeeds upon the dotted tongue and is more or less mixed with it, the central part being continuously covered, the sides being only spotted. The intimate changes are chiefly epithelial excess. The processes of the papillæ are elongated; the epithelium of the intervals is superabundant and is probably reinforced by accidental matters. More or less "prostration," to use a somewhat indefinite term, was recognised in a considerable proportion of the instances in which the concomitants of this tongue were recorded and in many the saliva was noticeably deficient. Some degree of febrile action was testified to by an average temperature of 99·1° in 41 cases. Looking at the clinical adjuncts of the moist coated tongue I found that the manner of taking food was often concerned. In 26 of 41 cases the diet was wholly or chiefly liquid, not including two in which it was introduced by the rectum. Apart from diet this tongue concurred with a variety of conditions too numerous to mention where in general terms the patient was ill but not very ill. A catalogue of the conditions in which it is apt to occur would comprise most of the lesser ills of humanity and many of the greater, not yet in full force or of long continuance. Whatever raises the temperature, impairs the appetite, or restricts the salivary wash may give rise to this state of tongue to lead, it may be, to more ominous phases. I need not insist on what is almost obvious, that when the coated tongue is dry the indication is more grave than when it is moist and the average temperature somewhat higher. 18 cases gave an average temperature of 99·5°.

Two varieties of the coated tongue deserve especial mention, the "strawberry tongue" and what I have ventured to call the "plastered tongue." With the strawberry tongue injection underlies the coating through which the red papillæ project, the converse of what holds with the fruit where the white projections push through a coloured ground. The ideal strawberry state occurs with scarlet fever where the tongue appears to participate in the eruption; but lesser degrees of it are to be found in other febrile conditions. What I have called the "plastered tongue," which looks as if white lead or some less vividly white and coarser grained material, more like mortar, had been carefully spread upon it, abruptly ceasing at the edges, is the acute coated tongue or the coated tongue of acute disease. The coat is more white and more sharply defined and the substratum is more red than with the coated tongue of trivial or chronic disease. The fresh look of the coat betokens recency and its abundance the activity of the process which has produced so much in so short a time; in other words, the acuteness of the disease with which it is associated. The minute anatomy of the plastered tongue is that of the common coated tongue, only more so. The elongation of the papillæ is greater; there are more filling up of the intervals and more accumulation upon the summits of miscellaneous matters—epithelial, parasitic, and accidental. There is no tongue more instructive and distinctive. The first glance gives the alarm and

suggests pneumonia or typhoid fever in the first place, then acute bronchitis or acute rheumatism. Nor are other acute febrile disorders to be ignored, though less to the front than those which have been mentioned. The average temperature of 27 persons presenting this tongue was found to be 101·6°.

Turning from the acute coated tongue, the most definite in its indications of all the tongues we know of, we come to one which is less distinctive, more often chronic than acute, signifying disuse more than anything else. This may be called

THE FURRED OR SHAGGY TONGUE

and is charcterised by the preposterous length of the papillæ suggestive of coarse and matted fur. The word "fur" is used in two senses—there is the fur of a beast and the fur of a tea-kettle: the one presents a series of points, the other a level surface. The word has been applied to the tongue in both senses, perhaps the more often as implying a smooth coat. I have, to avoid confusion, restricted it to the animal usage—beset with points. The elongation of the papillæ is evident to the naked eye and during life. They are often tipped with brown and more or less obscured by incrustation and may present irregular pointed masses. I have seen in a case of cancer of the larynx much of the hinder region covered with a villous production like coarse hair, no part of the cancer, but only an exaggeration of the natural structure condemned to disuse. Under the microscope the chief change is elongation of the filiform papillæ, more especially of their extremities, which in a microscopic sense may be termed horny, yellow, and rejective of carmine. The circumstances of this tongue are for the most part restriction of diet and want of wear and of saliva. Of 29 cases where this variety of tongue was noted were 21 where ordinary food was absent or restricted, 17 were on liquid diet, three were on dry diet, and one was on rectal diet. Except with diet this tongue has no special association, though some degree of pyrexia is usually present and helps to stimulate the growth of the papillæ. 22 cases of the furred and dry tongue gave an average temperature of 99·1°. This tongue is usually dry and when so promises ill. It occurs more often with chronic disease than acute, though I have noted among its associates pneumonia, typhoid fever, and acute rheumatism. It generally tells of long illness (for the exaggeration of the papillæ is a slow process) of such a sort as to restrain the saliva and to inhibit solid food.

Succeeding upon the plastered and furred tongue comes that which is

INCRUSTED, BROWN, AND DRY.

The elongated papillæ are there but they are separated and caked over with a brittle crust, variously cracked and fissured, which largely consists of vegetable organisms, oidium albicans and micrococci, together with detached epithelium and extraneous and miscellaneous matters. This is the climax of acquisition. It tells of long exemption from wear and wash, of absence of mastication, suppression of saliva, and generally, though not necessarily, the presence of a high temperature. This is the tongue of the "typhoid state," though by no means limited to typhoid fever. It is of grave prognosis and calls for liquid nourishment, of which alcohol forms a part. This is the tongue of long-continued prostration or failing vitality; the essential factor is long suppression of saliva; pyrexia is generally present, though not necessarily so, since it is possible that the tongue may be dry and incrusted, though the temperature is subnormal. Typhus and typhoid fever, pneumonia, and pyæmia are frequent concomitants. To name all the conditions with which it may concur would be to include many, perhaps most, depressing and exhausting diseases, especially such as are nearing their fatal close. A dry mouth, failure of the salivary and probably of other glands essential to nutrition, the absence of the power of taking other than liquid food, and probably withal a febrile temperature—these are implied by the incrusted tongue and together are of evil omen. The average temperature of 21 cases of this tongue was 100·3°.

Having traced the coating of the tongue through its various stages up to its maximum in a cindery addition, perhaps an eighth of an inch thick, we now come to the contrary process, that of denudation, which ends in the tongue which is

RED, SMOOTH, AND DRY.

This, naked, bare, and raw-looking, so as to be likened in common parlance to beef-steak, is produced in this wise. After the continuance of some wasting or depressing disease, often attended with exhausting discharge, it may be of pus, the lingual epithelium fails to grow properly; the upper layer disappears and the deeper is laid bare; or even in parts the whole epithelial thickness may go leaving the deeper structures exposed to the irritating contents of the mouth. Connected with the general exhaustion or depression is the consequent deficiency of saliva which when long continued seems to impair the nutrition of the epithelium—not that the epithelium is fed by the saliva, but it needs to be kept moist to profit by its opportunities. The denudation may succeed by a gradual process upon health, as this gives way to disease, or it may ensue upon the incrusted tongue, the crust breaking off or wearing away. The upper layers are often swept away down to the Malpighian, or this may go too, laying bare the corium which becomes injected and charged with leucocytes. Often a process of repair may be discerned. The deep remains of the epithelial layer, the papillary prominences being swept away and the tongue levelled, now become clothed with a delicate translucent membrane of uniform thickness, barely evident except with the microscope, which scarcely interferes with the raw beef appearance. This membrane refuses carmine and is apparently representative of the superficial epithelium which normally tips the papillæ.

Like the incrusted tongue, that which is raw and red is associated with pyrexia as a general though not an invariable accompaniment and with deficiency of saliva probably as an invariable one. But there must be other and special circumstances which determine that the tongue shall be denuded rather than incrusted or furred. It appears, in the first place, that the denuded tongue represents a later phase of disease than the coated or incrusted, for it often succeeds upon these and takes longer to make. To what extent want of saliva alone is able to make bare the tongue may be doubted. The circumstances in which it becomes so suggest that though suppression of saliva may be contributory, some special cause of exhaustion, often by discharge, is also contributory.[2] I have elsewhere quoted a case in which after a nervous shock the saliva was permanently suppressed and the tongue became not only dry but red and bare. It is possible that there may have been more in this case than we know of. At any rate, it is clear that exhaustion by discharge plays a large part in the impairment of nutrition which this tongue represents. Among 30 cases in which it was observed were five of diabetes, four of phthisis or other forms of tuberculosis, two of lardaceous disease, two of dysentery and abscess of the liver, and four of purulent discharge in some other shape—17 in all in which a morbid flux concurred with the tongue under consideration. The most vivid example of this tongue which I ever chanced to light upon was in a case of dysentery with unopened hepatic abscess. Pyrexia does not range so high as with some of the preceding types of tongue, giving for 29 cases an average of 99·6°. The diseases with which it is associated are mostly subacute and the fever is often hectic. Thus, the clinical significance of the red bare tongue is clear enough: prostration of some standing, often connected with material exhaustion, and apt to be attended with febrile action of the hectic type. The salivary secretion is deficient though not so much so as with dry incrustation. Physiologically the essential factor is failure in the growth of the lingual epithelium, apparently due to a concurrence of causes rather than to one alone. Whether apart from its action by way of the saliva the constitutional depression has any direct effect in inhibiting epithelial growth must be asked—it looks as if it had. All the processes of nutrition must be supposed to suffer where there is a cause of exhaustion which acts on the whole body, but if the denudation of the tongue is wholly due to this cause nowhere else is the impairment shown so conspicuously as in the lingual epithelium.

Of this organ I have now traced the morbid covering from mere dotting of the papillæ to its climax in mountainous accumulation and have then followed the reverse process by which the tongue has been stripped of its coat and even of its skin. I have pointed to some, perhaps the chief, of the agencies at work in bringing about these changes: the abeyance of food and friction, the deficiency or absence of saliva, and the association of pyrexia with overgrowth of epithelium, and of some forms of exhaustion with its falling away. I have shown that the tongue, whatever else it may be, is a constitutional index or systemic gauge which comprehends much and

[2] The Tongue as an Indication of Disease, Dickinson, p. 88.

reveals much, and is especially in touch with conditions of fever. It does not point out the locality of disease but it shows its general effects, often hints at its nature, and offers some broad hints as to its treatment. Nor must I omit to recall what I have already hinted at—the prognostic value of the organ in question. If "old experience doth attain to something like prophetic strain," it is often by means of the tongue that this gift is manifested. Invaluable is the quick assurance in a case of acute disease that the patient is on the road to recovery which is imparted by the first glance which shows the coat to be withdrawing regularly round the edges, exposing a wet and healthy surface. If the tongue is on the mend so must be the man. Quite otherwise is the prospect afforded by an irregular breaking away of the coat, giving to view a substratum which is red and wanting in moisture.

I cannot flatter myself that what I have this day put forward, drawn partly from the common stock of medical knowledge and partly from my own observation, is anything more than a very imperfect attempt to connect the morbid appearances of the tongue with the disturbances of health of which they are the signs. Though the subject in some of its aspects is one of the most ancient in medicine, yet in others it dates no further back than the microscope and thermometer and in all but what is empirical is in a provisional stage. But if we do not know all we know enough to be sure that the value of the tongue in clinical medicine deserves a fuller exposition than it has this day received and a more able exponent.

An Address
ON
THE DISPOSAL OF THE WOUNDED IN NAVAL WARFARE.

Delivered at the Royal United Service Institution, Whitehall, on May 12th, 1903,

BY PHILIP N. RANDALL, M.B. LOND.,
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GENTLEMEN,—Naval medical officers view with foreboding and dismay the prospect of being called upon to deal with a large number of serious injuries in such situations and under such conditions as are unsuited for such purposes. The sick-berth of the present day in the navy has gained light and air but the situation selected for it in all modern ships is thoroughly recognised to be one which would be absolutely untenable in actual warfare. The period of convalescence is one which at all times calls for constant and anxious attention but more particularly after major operations performed upon those who at the time of their injury sustained in consequence a profound shock to the whole system. Shock, *per se*, adds greatly to the difficulties present and the dangers to be apprehended in every case. There must be a provision of such prime hygienic necessities as space, light, fresh air, warmth, comfort, and complete freedom from all septic dangers. In considering the means at present existing in ships for the accommodation of the wounded the first point which seems most naturally to offer itself for attention is the position and capacity of the sick-bay provided in each ship, seeing that this is the only place in the ship devoted to, arranged, and fitted out for the work of the medical staff. However, in all modern ships it has been found necessary to seek for a cock-pit for use in action, and a site is officially selected for such use. It is this place, therefore, that must needs be considered and not the sick-berth. A return to the cock-pit principle has been decided upon officially for some time past but beyond the selection of a site nothing further has been done to make the place selected in any way fit for its important duties except the provision of an operating-table. The question of the accessibility of the cock-pit from the fighting decks raises a practical difficulty which has always been present and has become increasingly harder to compass in each new type. The features that so complicate the matter are due to the introduction and the more and more extensive use of water-tight compartments with a corresponding increase in the number of the divisions and subdivisions of a ship by means of watertight bulkheads. The use of armoured decks introduces a still further interposition of difficulties. When the ship is cleared for action every opening in all these transverse, longitudinal, and horizontal partitions is necessarily closed up, only such as form the means of communication between the magazines and the fighting stations being left open. Conveying the wounded to a dressing station improvised below the armoured deck has therefore become a matter of considerable difficulty, for the choice of position for such work is not only limited by special needs as to size of aperture necessary but also by the finding of a hatch that can possibly be used for the purpose. A torpedo hatch is usually selected as having sufficient size and probable freedom from other uses. When the wounded have been brought down through a hatch to the flats, there still remains the necessity of finding a suitable place for their bestowing; but whether it be the barbette flats, the wing passages, or the bathrooms for the engine-room ratings, the same serious objections apply to all. In not one of them is there any supply of air or light, other than by artificial means. The boilers and engine-rooms are in close proximity, keeping the places at a high temperature and rendering the air close and stuffy even under the ordinary conditions of cruising when all the boilers are not in use and every possible opening is kept free. Tightly closed down in action, with all the boilers alight, would mean a very considerable aggravation of already objectionable conditions. It might, perhaps, be possible to accommodate about 40 cases in these flats but to do so they must be laid on the deck and packed closely together.

The next point to be considered is the state of things that would actually obtain and have to be dealt with during and after an action. In other words it is necessary to determine as approximately as possible the number of wounded that would have to be dealt with as the result of an engagement. There are strong grounds for the belief that, in an action in which there are highly trained and skilful gunners on each contending side, the number of wounded would show no diminution on that obtaining in the old days, especially as all fire would now be concentrated upon the hulls and not upon masts and sails, which latter were the primary object of our former foes. A working average of 7 per cent. of the complement, as the number of wounded to be expected in each ship in action, cannot be said to err on the score of exaggeration, but must rather be looked upon as the irreducible minimum. If that figure be taken as a working average, and applied to battle-ships, &c., now composing our main fleets, and certain to be actively engaged in a naval war, an approximate number may be obtained of the wounded that would have to be treated in each ship that emerged from the contest. At the same time it must be borne in mind that this approximation may only represent a third, or even a fourth, of what might actually occur. The total wounded for the Mediterranean fleet would be 1112, the total wounded from the Channel and Reserve Fleets would amount to 1385, and the wounded of the China Fleet would amount to 559. Having now arrived at an estimation of the number of wounded that might be expected the condition of the ship itself after an action may be considered. The unarmoured parts would be completely riddled by every sort of projectile, shot, shell, and bullet, so that the internal arrangements of those parts would be in a state of complete and thorough disorganisation, due not only to the wreckage and destruction wrought by the explosion of shell but also to the consequent outbreaks of fire; as regards the armoured parts of the ship it is at least doubtful whether the best protection yet devised would remain intact, so that at any rate there can be no doubt about what would happen to parts where there was a less amount of protection by armour, whether in thickness or in quality of face. It is, in fact, laid down by more than one authority that, to escape as much as possible the far-reaching and devastating effects of shell, it is better to have no protection at all than a moderate easily pierceable amount. Much the same disorganisation would therefore be found within the armoured parts as without, though maybe not to the same degree of destruction. We are now able to consider how far the means at present provided would go to meet the demands that would actually be made upon them. It will enable matters to be seen more clearly if the facts, as established, are actually applied to a ship like the *Majestic*, as fairly representing the modern type of battle-ship. The *Majestic* has a complement of 757.

The cock-pit would be established in the lower deck flats, below the armoured deck and inside the protected part of the ship. Either the barbette flats, the wash-places, or the ammunition passages would be selected. The sole means of communication between such places and the fighting decks would be devious and difficult; the only provision of light would be by artificial means and probably only by candles; while all means of ventilation would be cut off by the closing of the armoured deck and the many bulkheads that exist. This last measure would be a vital necessity for the ship, but would make many times worse an atmosphere which under ordinary conditions is close, mephitic, and kept at a high temperature by the proximity of the boilers, all of which are in use. The vitiation of the atmosphere of a closed space increases rapidly with each expiration from the lungs made by every person present therein and each addition to the number of persons adds to the foul and poisonous condition. The number of wounded to be expected, according to the average, would not be less than 53. When the ship emerges from action with her unarmoured ends completely wrecked and disorganised, with her armoured parts in a somewhat similar condition, with numerous shot holes and rents in her sides allowing seas to wash in freely so that the decks and flats about the level of the water-line would be flooded with water, with, perchance, injuries from ramming or torpedo which by alteration of stability or damages to engines and other vital parts would only add to the general confusion, and with lighting and ventilating arrangements probably altogether unworkable and completely broken down, how and where, it may be asked, will it be possible to find a place wherein at least 53 men with, in the majority of instances, severe wounds can receive in even the least degree that immediate care and attention, and especially the fitting after-treatment, which are necessary to save their lives? The attempt to accomodate them in the flats could, and would, only mean a return to the disastrous effects of earlier days. The teaching of former experience has been writ large in naval, military, and civil practice, and the meaning of the writing on the wall cannot nowadays be possibly misunderstood or misconstrued. Consequences of terribly fatal effect would most certainly be entailed if, and whenever, 50 men—or for that matter half a dozen men—were closely packed together on the wet deck of a heated, stuffy place, never visited by daylight, having no natural supply of pure air, and with the artificial supply of both most probably cut off. They would have to breathe an atmosphere thickly charged with respiratory products and human emanations. The blood about the deck, the clothing, the bedding, and dressings would speedily become putrescent, and there would soon be poured forth from the large wounds a vast amount of putrescible discharge. In a medium so favourable to the production and rapid growth of many kinds of infective bacteria, erysipelas, tetanus, hospital gangrene, and all the fell products of septic infection would inevitably be developed, while all means would be powerless to avert their ravages and they would deal death far and wide among all cases of wounds, whether these were of large or insignificant dimensions.

Demonstration has now been made that the number of wounded would be large in every ship actively engaged; that the accommodation at present provided in ships would be insufficient for even a fourth of the number that might be expected; that this accommodation, being in the unarmoured part of the ship, would be impracticable for use during action; that it would be absolutely unfit for any use whatever afterwards; that it would be impossible to obtain elsewhere in the ship adequate and proper accommodation for the wounded; that the suggested cock-pits are in no wise suitable in size or in general conditions; that the use of so insanitary a place would infallibly bring about outbreaks of septic diseases of the most virulent kind; that no means of transport would be found on board available for use after action; and that the only hospitals large enough to receive the numbers consequent on a fleet action are at Portsmouth and Plymouth. The evidence thus adduced and set forth can lead, after careful consideration, to but one conclusion—that in the fighting line afloat, as in the case in that ashore, all treatment of the wounded beyond "first aid" would be impracticable, and further, that after-treatment on board would, in justice to the wounded, be a practical impossibility. There is, however, an obvious way out of the *impasse*, which is the adoption of the principle of hospital ships for fleets, thus ensuring the saving of many lives which would otherwise be certainly wasted. Every fleet of battleships should therefore have attached to it one or more ships entirely devoted to, and specially fitted out for, hospital duties, flying the Geneva Cross, and complying in all respects with the terms of the Geneva Convention and those of the Hague Conference. These fleet hospitals would cruise with the fleets, and, having first received all cases of serious illness from the ships, would accompany them to the verge of safety when they went into action. Each hospital ship should be provided with as many large and roomy boats as could possibly be carried. By means of these boats endeavours could be made to maintain close communication with the fighting line, seizing upon every opportunity that offered, such as a ship hauling out of action, to collect and to transfer to the hospital ship as many wounded as possible. This may or may not be practicable, but the main use will be when the action is over. The hospitals would then close with the fleet and their boats would bring away all the wounded from every ship in the fleet. By these means the ships of the line would be freed from the encumbrance and hampering due to the presence of wounded on board and would be left with crews necessarily diminished in numbers but composed of those fit and able to devote their whole attention to their own proper duties. The benefits accruing to the wounded would be incalculable, for once received on board the hospital ship their treatment could be carried out each and every case in proper detail and according to needs, quite free from difficulties which otherwise would be overwhelming. At the same time excellent conditions for the due and proper after-treatment of the cases would be completely insured. The movements of the hospital ship subsequently to the action would necessarily be governed by circumstances, but whether despatched to the nearest available hospital or remaining at sea with the fleet those on board would be under conditions offering the best means of recovery and vastly different to a labouring and probably long-drawn-out voyage in a much damaged battle-ship possibly unable to effect more than a few knots of speed.

Under these conditions the services of the medical staff would have to be disposed in three ways—in the fighting line, in the collecting boats, and in the hospital ships. In the fighting line only "first aid" should be rendered to the wounded and for this purpose dressing stations should be established where possible and convenient. One medical officer in each ship would be sufficient for the supervision of that work and his sick-berth staff should be reinforced by the chaplain and accountant staff, for all of whom thorough instruction and examination in those duties should be made compulsory. The medical officer and his staff of assistants must be free to move about the ship as expeditiously as they can and to go wherever they are most urgently needed, as, for instance, to a case-mate wrecked by a shell. A central dressing station would naturally be of the greatest assistance but it must be regretfully admitted that very little can be hoped for in this direction in view of the very complicated arrangements of modern ships of war. The introduction and general use of case-mates for the guns of the secondary battery suggest that these might in some way act as a screen for dressing stations established in rear of them. The deck would be clear, communication would be easy, and the wounded would be most conveniently placed for removal to boats whenever a suitable opportunity presented itself. The difficulty of conveying the wounded would thus be completely avoided and there would be a great gain in promptitude of attention by the medical staff. The collecting boats should be steamboats of good and handy sea qualities, as large and roomy as possible, and accommodating six or eight cases. They must be manned by crews well skilled in boat work, as well as in the hoisting in and out of cot cases. Not less than 12 of these boats should be carried by each hospital ship.

The type of ship most appropriate for the purpose of a hospital ship is one on the general plan of a modern mail steamer of the best class, of good size, and capable of maintaining a continuous sea speed of not less than from 18 to 20 knots so as to keep station with a modern fleet proceeding at full speed. The wards should occupy the centre and forward parts of the ship, where nowadays is placed the first-class accommodation in mail steamers, thus insuring a liberal supply of fresh air, light, and deck space. It would be well to limit the accommodation of each ship to 500 cases, so as not to involve too large a staff and consequent difficulties in finding sufficient room for their due requirements and convenience. The ships should be specially built for the

purpose and not adapted from existing mail steamers, so as to insure complete protection from septic dangers. *Mutatis mutandis*, all the details, large and minute, now introduced into modern hospitals with the object of limiting as far as possible resting places for dirt of every description should be carried out in the ships so as to obtain damp- and germ-proof floors, walls, and fittings throughout. In a word, the hospital afloat must be built in every respect in accordance with the principles adopted in the hospital ashore and must be as perfectly self-contained in every respect.

With a ship thus equipped for the purposes of active service, and by strict attention to all other details besides those briefly alluded to which insure complete asepsis, it will be possible to remove completely the stigma which formerly attached to hospital ships which had been used in connexion with military operations from a sea-board base. The wounded would be able to do as well as if treated in well-appointed hospitals on shore; moreover, they would not be taking up room which, if found, could be ill-spared and would be wholly unsuitable; they would not be in the midst of extremely insanitary conditions which would cause them great distress and be of actual deadly effect; they would no longer be exposed in a helpless and hopeless position to fresh wounds in any further action; but they would have every possible means known to modern science afforded them of remaining to prove of further use to themselves and to their country. A profitable use could be found for such ships in time of peace. Part of the year could be devoted to cruising with their respective fleets, carrying out manœuvres which should embrace all the details for active service, thereby insuring proper training and efficiency. For the remainder of the year they could be used for the conveyance home of invalids only from India and other foreign stations at the cost and charges of the respective military authorities. A special service in this respect would be a great boon to all concerned and has long been needed.

THE SURGICAL TREATMENT OF PULMONARY HYDATIDS.

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As little or no mention is made in English text-books as to the prevalence of hydatid disease in the Argentine I should like to draw attention to the frequency of the affection there, for I think that if reliable statistics could be procured in all probability it would rank as second to Australia in this respect. During the past eight years I have operated on 84 cases, 56 of which were hepatic and only three pulmonary. Obviously the experience derived from a few cases affords little material for conclusions, yet as hydatid of the lung is comparatively rare possibly the notes of my cases and the details of treatment may be of some interest.

I cannot help thinking that two of my patients would have succumbed if operative treatment had not been adopted, and in making this statement I am cognisant of a recent contribution by M. Dieulafoy in which he arrived at this somewhat disconcerting conclusion: "The treatment is more or less expectant, being directed towards the control of the hæmoptysis; surgical intervention can seldom be of much use, for when the cyst empties itself there is no need to interfere and in other cases their localisation may be too difficult to warrant exploration." By way of comparison the following extract from Mr. Stephen Paget's work on "The Surgery of the Chest" is most interesting. "It is plain that the mortality of hydatid disease of the lung left to itself is somewhere between 50 and 60 per cent., to say nothing of the years of illness which some of these patients undergo. Statistics of operation are in strong contrast with those of non-interference. In 1885 Thomas collected 32 cases of hydatid of lung treated by free incision with no less than 25 recoveries—he puts the mortality left to itself at 54 per cent. ..... The rupture of the cyst into a bronchus may of itself be a frightful ordeal even if it does not end in death." Considering the ample opportunities which Australian surgeons have had in order to form correct conclusions I think that the majority of English surgeons will differ from the teaching of the illustrious French physician.

The important primary points connected with a case of this sort are diagnosis and localisation. The former may be attended with much difficulty, for if the cyst has not ruptured into a bronchus microscopical examination of the sputum, which is our one positive diagnostic resort, affords only negative information. In such instances the family and personal history of the patient have carefully to be considered and also the locality in which he has resided for previous years, as in countries where hydatid disease is common one has always to eliminate the echinococcus before definitely deciding as to the nature of any tumour. The unilateral situation of the affection, with probably a sharply defined dull area not corresponding to the usual site of a pleural effusion or hepatic enlargement, taken in conjunction with diminished breath sounds, vocal and tactile fremitus, with antecedent evidence of an irritating hacking cough with bronchitic sputum, may reasonably excite one's suspicion.

If rupture of the cyst has occurred the symptoms may be altogether different. There is usually the history of a sudden evacuation of a quantity of fluid, followed by frequent, and at times considerable, hæmoptysis—a complication which not only seriously aggravates the condition of affairs but also affords evidence that a communication exists through which air can pass into the cyst cavity, the result being that the latter becomes gradually converted into an intra-pulmonary pus sac, general toxæmic symptoms promptly supervene, and as the contents of the cyst become diminished moist râles, and even cavernous breathing, may take the place of the previous absence of breath sounds. Differential diagnosis in this phase would be almost impossible if it were not for the fact that microscopical examination of the sputum now affords positive evidence—viz., hooklets and bits of necrotic chitinous material. The latter may be often detected without the aid of a microscope and are commonly described as pieces of "gooseberry skin."

It may be expedient to remember that the absence of any of the usual symptoms does not negative the presence of a cyst, for diminution of breath sounds and existence of dulness are to a great extent determined by the amount of lung tissue which intervenes between cyst and chest wall and it is obvious that there must be a period in the development of all "intra"-pulmonary hydatids in which physical examination would not reveal anything abnormal. And it is only when the cyst assumes such proportions as to cause irritation of the lung that the first symptoms, dull pain and cough, supervene. So much have I been impressed with these subjective symptoms as being indicative of hydatid that I usually assume the presence of hydatids on hearing a healthy-looking camp man complain of a pain over the right hypochondrium (liver) or of a hacking cough with or without pain in the chest. If physical examination does not afford a clue I usually adopt a waiting policy and advise the patient to return to work and to report himself periodically if things do not improve. Quite a number of these patients return in from six months to two years with a "full blown" cyst. As hydatid disease is fortunately a lazy one I think we may profit by the fact and adopt the business man's tactics, await instructions, which in this instance signify a few physical signs which ordinarily denote the existence of disease. But, as I mentioned above, it is impossible to diagnose with certainty a case of pulmonary hydatid in which rupture into a bronchus has not occurred, even admitting the existence of well-defined dulness, diminished expansion, &c.; consequently, if we suspect hydatid and are prepared to deal with it surgically I see no help for it but to fall back on some exploratory device.

Personally I do not much fancy opening the chest on an exploratory mission, for not only does thoracotomy in itself entail risk to the patient but it by no means follows that such an opening would correspond to the most suitable point at which to attack the cyst; moreover, it must be remembered that in many cases the capsule may not be evident even when the lung is exposed (*vide* my cases). Consequently I not only recommend the employment of the exploratory syringe and needle as a diagnostic agent but as a valuable aid to localisation; by the information thus derived we are enabled to plan our incision so as to correspond with the most superficial portion of the cyst and so avoid unnecessary interference with lung tissue. While advocating the use of the needle I ought to mention that in two hepatic cases rather alarming transitory toxæmia followed an exploratory puncture; I now make it a rule to perform such exploration under anæsthesia on the operating-table and immediately to back up the needle by

a scalpel if hydatid fluid is struck. By this means I think that any danger attending the escape of hydatid material into a serous cavity may be practically eliminated.

As I do not know of any operation in which it is more necessary to commence with a definite plan of campaign I may be pardoned if I enter rather fully into detail. Chloroform having been administered, the patient is placed in the supine position, with the affected side well overlapping the edge of the operating-table and two assistants are deputed to maintain this position throughout. On removal of the perchloride lint dressing an assistant washes the whole side of the chest with alcoholic acid mercurial solution (1 in 1000). An exploring needle is next inserted into the suspected area and if fluid enters into the syringe the latter is detached and the needle is utilised as a sound to locate the most superficial portion of the cyst. Once this point is decided on the needle is withdrawn and a four-inch incision is made parallel to the corresponding ribs, a few inches of the latter are resected, the pleura is opened and the presenting lung is instantly secured by two good bullet forceps and rapidly drawn into the wound. By this manœuvre the confusing storm consequent on a collapsed lung is obviated and blood and hydatid fluid are later prevented from dropping into the pleural chasm and setting up a septic pleuritis which not infrequently proves fatal. The bullet forceps are then handed to an assistant whose sole duty it is to take care that this extemporised cork does not slip back. The exploring needle is again inserted and if fluid appears in the syringe the latter is removed and the needle is left *in situ* so as to act as a guide for the knife which is now entered alongside it. The intervening lung tissue is incised and the cut edges are seized by forceps and everted. The knife is then pushed into the cyst and as the fluid escapes the exploring needle is withdrawn and the left index finger is introduced along the blade of the knife into the cyst; the latter is in turn removed, two sharp hooks are inserted alongside the finger, and by this means the cyst wall is secured and drawn outwards. With a large full-curved needle some half a dozen silkworm gut sutures are applied so as to include the cut edges of the fibro-cyst with some pulmonary tissue and passed outwards through the intercostal muscles and the skin and just as they are being tied the assistant removes the bullet forceps so that the extruding portion of lung may recede. With this the operation is practically concluded; the endocyst is removed by gentle application of a long forceps, a large rubber drain is inserted, and iodoform gauze is applied to the wound.

The after-treatment is most tedious as there is a great tendency to the formation of a flask-shaped cavity—viz., closure of the external wound before the cavity in the lung is obliterated. I have frequently observed the same in hepatic cases and on six occasions I have been compelled to make an intercostal counter-opening subsequently to cœlio-hepatotomy.

There are some who, notwithstanding the experience derived from Bond's operation in liver cysts, still advocate removal of the contents of the fibro-cyst and closure of the external wound without drainage. In suppurative cases such treatment would be obviously inane and even in non-suppurative cases, considering that the fibrous sac has to be got rid of somehow, I cannot see any reason for not availing ourselves of a ready exit without taxing nature with its absorption, not to mention the possibility of the cavity becoming septic after operation. I tried Bond's method once in a case of simple hydatid of the liver and 14 days later I had to re-open the abdomen in order to clear out a large quantity of pus; fortunately, adhesions had formed between the cyst and the parietal peritoneum or the result most probably would have been disastrous.

CASE 1.—A man, aged 51 years, was sent into the British Hospital, Buenos Ayres, on Dec. 24th, 1896, by my friend, Dr. L. Colborne. About 12 months before admission he first complained of a dull pain in the right chest, which was soon followed by an irritating cough with a small quantity of clear sputum. Three months previously he had suddenly coughed up a large quantity of blood-stained liquid; severe attacks of hæmoptysis ensued, accompanied by nocturnal fever, sweating, shivering, and loss of flesh. There was nothing in the personal or family history which threw any light on the subject. Physical examination revealed absence of respiratory movement on the right side, with marked dulness over the anterior and lateral portions; respiratory sounds were absent and vocal and tactile fremitus were considerably diminished. On the evening of his admission into the hospital his temperature was 102° F., his pulse was 110, and his respirations were 35, and he was continually coughing up blood. The existence of a resonant patch beneath the angle of the scapula, with free entry of air, struck us as somewhat suspicious, so an exploring needle was inserted and some clear watery fluid appeared in the syringe (it contained hooklets). On the following day chloroform was administered and, assisted by Dr. Colborne, I excised three inches of the fourth rib in the anterior axillary line. Lung tissue presented and had to be incised for one inch in depth before we encountered a large cyst which contained nearly two pints of clear fluid, about eight ounces of pus, and a necrotic endocyst. The operation as described above was carried out and the patient was discharged cured on Jan. 22nd, 1897.

CASE 2.—A youth, aged 18 years, entered the hospital on May 4th, 1901, with the diagnosis of hydatid of the lung. In April, 1900, he first complained of getting out of breath on slight exertion and a few months later a troublesome cough supervened, with abundant frothy expectoration. He gradually lost flesh and occasionally felt feverish, and as physical signs of some lung affection became obvious in November his medical attendant determined to explore. Curious to relate, while the syringe and needle were being disinfected in the patient's bedroom he was seized with a severe paroxysm of coughing and brought up about "two litres" of "water." This seemed to relieve matters for a time. In January, 1901, the cough became very persistent, with frequent hemoptysis; fever, sweating, chills, and loss of appetite became intensified and in February he coughed up "bits of skin." On his admission into the hospital physical examination of the right chest revealed diminished expansion and marked dulness from the third rib downwards in the nipple and axillary lines and abundant bronchial râles, with some moist sounds, were elicited on auscultation over the dull area. Posteriorly the percussion note was modified and some vesicular breathing was heard in the scapular line. Tactile and vocal fremitus were increased over the affected area. The evening temperature was 101° F., the pulse was 90, and the respirations were 32. During examination he coughed up two pieces of cyst. Operation was performed on May 10th. Half an inch of lung tissue intervened between the chest wall and the cyst which was attacked through an incision over the fourth rib in the anterior axillary line. About a pint of pus and a gangrenous endocyst were removed. A most protracted and tedious convalescence ensued, the wound discharged for months, and he could not be sent out as cured until August 19th.

CASE 3.—A boy, aged six years, was admitted into the hospital on Oct. 9th, 1900, with the following history. His mother stated that in April "he caught a severe cold" and a short dry cough remained which, in spite of a month's sojourn on the Cordoba Hills, had continued up to the date of his admission. After some time it was noticed that he was getting thinner and losing his appetite and a nocturnal rise of temperature was noted without any sweating or shivering. On the morning of his admission the temperature was 101·6° F., the pulse was 120, and the respirations were 40. The patient appeared to be somewhat emaciated; he had flushed cheeks, dry and hot skin, and a furred tongue. On examination of the chest there was distinct subclavicular flattening with diminished expansion over the right apex, resonance was deficient anteriorly and posteriorly, tactile fremitus was decreased, and there were harsh tubular breathing and twanging voice sounds. The breath sounds were normal over the rest of the lung. There was no history of tuberculosis in the family but an elder brother had suffered from hydatid of the liver. The evening temperature reached 103·6° F. There was a most troublesome cough with a little bronchitic sputum. On Oct. 11th chloroform was administered and a needle was inserted into the second space in the nipple line and some purulent fluid was withdrawn. Judging from the depth at which fluid was struck it was evident that the cyst was situated in the posterior portion of the apex. An incision three inches in length was made parallel to the second rib commencing in the mid-axillary line and extending backwards to the margin of the scapula. A few inches of rib were excised and owing to adhesions with the posterior wall it was found impossible to draw the lung into the wound, the lung collapsed, considerable shock immediately ensued, and to make matters worse six punctures with the exploring needle failed to locate the cyst. The anæsthetist at this stage of the procedure mentioned that "things are looking blue" and as there was no time to lose I pushed a knife upwards and backwards into the adherent apex and the sense of relief can be better imagined than described when I saw fluid flowing out

along the blade of the knife. A forceps was inserted alongside the latter and the opening was dilated so as to admit a finger, which detected a small collapsed cyst with only a few tablespoonfuls of pus. The cyst was removed and a large rubber drain was inserted into the cavity and another into the depth of the pleural chasm. The child's condition continued most grave for two days but youth, warm nutrient enemas, and strychnine saved the situation and after a sharp attack of purulent pleuritis the patient was discharged cured on Nov. 30th. A year later he was brought back in order to have an abscess opened which had developed in the track of the cicatrix; he left the hospital all right ten days later.

In connexion with hepatic cysts encroaching on the pulmonary area and simulating affection of the latter possibly it may not be out of place if I give the notes of the following case.

CASE 4.—A boy, aged eight years, the brother of the last patient, was taken to England in order to have an operation performed for hydatid tumour of the right lung. On arrival the boy was placed under the care of a hospital surgeon who confirmed the diagnosis and, without resection of the rib, made an opening in the fourth intercostal space and inserted a trocar and drew off a large quantity of clear fluid; a drainage-tube was inserted into something, little or no discharge followed, the tube was soon omitted, and the wound rapidly closed. The surgeon informed the mother that it was safe to take the child back to South America as the cyst would be sure to be absorbed. After a week on board ship the patient again complained of respiratory discomfort and by the end of the voyage (24 days) it was observed that he was losing flesh and had some nocturnal fever with sweating and an occasional sense of chill. He was taken immediately to the camp in the hope that the invigorating air of the pampas would soon establish convalescence. Reference, however, had soon to be made to my friend Dr. Peard who found things in a worse condition than when the patient had left for England, there being marked emaciation, sweating, and occasional rigors. The temperature was 104° F. and the right chest, from the third rib downwards, was immobile, dull, and breathless. Dr. Peard immediately took him to Buenos Ayres and assisted me on the day following his entry to hospital in the operation. Having removed a portion of the fifth rib in the anterior axillary line healthy lung tissue presented. A needle was inserted into the lung but nothing was found. On attempting to feel for the diaphragm the lung was discovered to be densely adherent to the diaphragmatic pleura and on separating some of the adhesions the diaphragm was found bulging considerably upwards. A needle was inserted into the liver and a syringeful of pus was withdrawn. Having attached the parietal to the diaphragmatic pleura by a circular suture of catgut the diaphragm was incised and a white-walled cyst presented which was opened and fully a quart of greenish-yellow pus with a large necrosing endocyst was removed from the liver. A large drain was inserted and a rapid cure followed.

I think this case tends to prove the futility of merely incising the chest wall as a means whereby hydatid cysts may be effectively dealt with.

Buenos Ayres.

A CASE OF GENERAL INFECTION BY A NEMATODE, ACCOMPANIED BY HYPERTROPHIC GINGIVITIS.

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A YOUNG woman, aged 19 years, of robust appearance and weighing 9 stones 8 pounds, was sent to me at the General Hospital, Birmingham, in March, 1902, after having been treated at the Dental Hospital for thickening of the gums, which was causing considerable protrusion of the upper lip and consequent deformity of the facial contour. The treatment followed, according to the patient's account, consisted in cutting away portions of the gum and the extraction of loose teeth, but in spite of the free paring the growth became more marked. The illustrations (Figs. 1 and 2) are from photographs of models of the upper and lower jaw respectively, made from impressions. It will be noticed that the hypertrophy is much less evident in the lower jaw, and this fact, together with the increased amount in the upper being on the right side, suggested that something had been applied with

FIG. 1.

Anterior aspect of the model of the upper jaw.

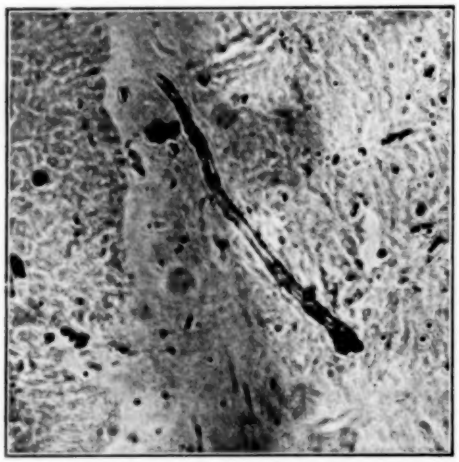
FIG. 2.

Model of the lower jaw.

the right hand in some way. The increase of thickening came about gradually, commencing in May, 1901, so that about ten months had passed before the case came under my notice. On questioning the patient I learnt that she was very fond of dumb animals, especially dogs, and on further inquiry was informed that she was in the habit of fondling and kissing the dog at home, which had died the previous Christmas, a little more than two months prior to my seeing the patient. On examining the mouth I found the greatest hypertrophy of the muco-periosteal tissue was situated between the first upper right premolar and the central incisor of the same side. It shelved off gradually to the left upper canine tooth, whilst in the mandibular alveolar border there was some hypertrophy occupying a corresponding position to the upper jaw, but to a much less degree. The upper teeth were slightly moveable on pressure, and although there was so much thickening the resilience was so marked in the soft tissue as to lead me to suspect the removal of some of the alveolar process. This surmise was found to be correct as subsequent examination showed considerable absorption of the osseous tissue. I extracted the right upper second premolar, which had become

hopelessly loose, and at the same time was thus better able to excise a little muco-periosteum for microscopical examination as I suspected from the history obtained some form of parasitic invasion. Sections after due preparation were cut and stained in various ways for demonstrating bacteria, but none were to be found after most careful examination. Instead there were to be seen in almost every section nematodes complete or portions of them (Fig. 3). This shows a field

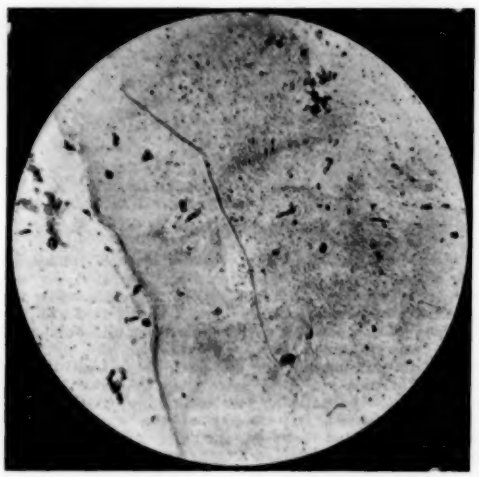
FIG. 3.



Nematode in muco-periosteum of jaw. Stained by Gram's method. Zeiss D D objective. No. 18 compensating eye-piece. 33 cm. camera extension.

including the Malpighian layer with deeper cells of the epidermis and the submucous tissue of the muco-periosteum (gum); in the centre of the field is seen an embryo nematode. In Fig. 4 the parasite appears in a more advanced

FIG. 4.

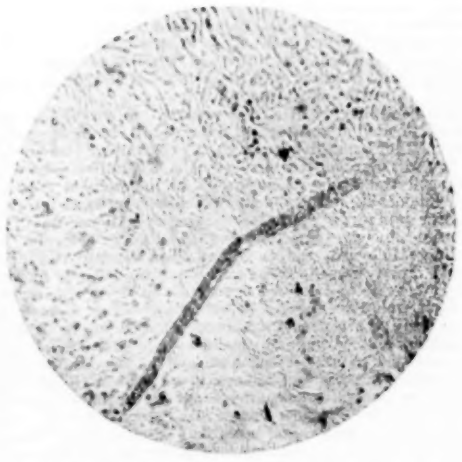


Stained by Gram's method. Zeiss A A objective. No. 1 eye-piece. 31 cm. camera extension.

state; the curves are suggestive of its great locomotive power enabling it to reach distant parts of its host. In Fig. 5, stained by Gram's aniline gentian violet, the nematode is seen deeper in the submucous tissue than in the two former sections, whilst its length is greater and its alimentary canal is more easily discernible.

On March 22nd, 1902, the third visit of the patient, I asked Dr. E. S. Nutting to make a blood examination, which he kindly undertook, and he reported that there was a slight increase of leucocytes—this is, 8000 per cubic millimetre. There were no marked increase in eosinophile cells and no myelocytes. Dr. Nutting further stated that under a $\frac{1}{12}$th of an inch oil immersion lens the films showed the presence

FIG. 5.



Stained by Gram's method. Zeiss A A objective. No. 18 compensating eye-piece. 33 cm. camera extension.

of one or two leucocytes in a field and never more; this statement should be borne in mind and compared with the condition found later. Having discovered the source and something of the nature of the infection my next step was to search for other signs and symptoms which might be occasioned by the parasite. The patient stated that she had had "an abscess" over the sternum in the middle line and at the nipple level about Christmas, 1901 (when the dog died), and since then at various times in other positions, but chiefly limited to the right side of the head, neck, and trunk. Down to the present time such lesions had not appeared upon either the upper or the lower extremities. In May, 1902, a "carbuncle-like" swelling was incised over the pomum Adami, from which a considerable amount of pus was evacuated; rapid healing took place. A little later another formed over the right superior angle of the scapula and close upon this another formed over the outer angle of the right eye at the edge of the hairy scalp. These "carbuncle-like" swellings were allowed to break down naturally as the patient had gone into the country for a change. The last to form was noticed on Dec. 1st, 1902. There was only a slight swelling on rising from bed in the morning and at night it was too painful to wear clothing over it, so rapid had been its formation. Many pustular swellings had occurred from time to time but these did not appear to have given the patient much inconvenience, as the inflammation was apparently only trifling, although a circumscribed button-like induration accompanied each. On Dec. 11th such a pustule formed on the inside of the right cheek. A photograph of the patient's back was taken on the 14th and it showed the scars resulting from the carbuncle-like swellings, the lowest being situated in the middle line of the lumbar region. I incised an upper darker coloured swelling seen at the base of the neck, which photographed as a black spot, but it was of reddish hue. From it there escaped some 30 minims of blood mixed with only the slightest tinge of pus, obtained by deep pressure. On microscopical examination I found at least ten of the nematodes in more or less complete forms.

I wish to express my gratitude to Mr. W. E. Collinge, B.Sc., F.Z.S., lecturer on zoology at the University of Birmingham, for examining the sections with me, and also to Professor W. C. McIntosh, St. Andrews University, who has kindly interested himself by writing to me at length on this subject after examining sections and photomicrographs which I had

prepared. He agrees with me that the nematode was probably the cause of all the trouble and further states that the suggestion that its source was a dog was borne out by the history of filaria. The aforesaid dog was a crossbreed—a Pomeranian crossed with a Skye terrier; its previous owner had never been out of England; he had had it from a puppy up to two years old when it was given to the patient's parents with whom it had lived four years. The patient had never been away from home prior to the infection, except a day excursion to Matlock, and had never bathed in the open, so that there is little evidence of any other source of infection than the dog.

As the nematode is a transparent object it can readily be overlooked in sections unless stained with methylene blue. On Jan. 15th, 1903, Dr. James Miller, assistant lecturer in bacteriology at the University of Birmingham, kindly made a careful examination of the patient's blood and furnished me with the following particulars:—

Red blood corpuscles	... 4,500.000 per cubic millimetre.
White blood corpuscles	... 9300 ,, ,, ,,
Hæmoglobin	... ... 80 per cent.

Differential Count.

Polymorphonuclears	... ... 65·3 per cent.
Lymphocytes	... ... 22·0 ,,
Large mononuclears	... ... 6·7 ,,
Transitional forms	... ... 4·5 ,,
Eosinophiles	... ... 1·5 ,,

The above averages were the result of two separate examinations. On comparing the above result with that found by Dr. Nutting there is at the present time a considerable increase of leucocytes, that is, 1300 extra per cubic millimetre will be observed. Fig. 6 is a portion of a photo-

FIG. 6.

Thick film of fresh blood taken on Jan. 10th, 1903, untreated. Zeiss A A objective. No. 18 compensating eye-piece. 33 cm. camera extension.

micrograph of a thick untreated film of fresh blood taken from the same source as the foregoing. There is one nematode in the field exhibiting the same characters as seen in Fig. 3, photographed *in situ* in the muco-periosteum.

With regard to past literature on this particular parasite, so far as I can gather from books and papers written in English, the only similar case is described by Surgeon O'Neil, R.N., in 1875[1] who states that actively moving filariæ were found by him in papules which occurred singly, the worms measuring 0·01 inch by 0·002 inch, and bearing two black marks at the head end. According to Surgeon O'Neil the infection is said to appear after an incubation period of three days. If this is the same parasite I am able to confirm Surgeon O'Neil's statement that it is contagious, as I have found a similar parasite in the blood of the mother of the patient. A disease resembling Surgeon O'Neil's craw-craw was described some time ago[2] by Professor Neielly under the title "dermatose parasitaire." A French lad who had never been abroad became affected with a papulo-vesicular eruption resembling scabies, in which Professor Neielly found a filariform parasite somewhat like that discovered by Surgeon O'Neil in craw-craw. It had the same peculiar cephalic markings; in addition it had a well-defined alimentary canal and rudimentary organs of generation. Manson[3] suggests that "as the skin parasite in O'Neil's disease may have been an advanced form of filaria perstans this parasite normally and in pursuance of its evolution escapes from the human body through the skin after undergoing there a certain measure of developmental advance." This, I have every reason to believe, has been borne out by the skin lesions occurring in this case. So far as I can learn this case is unique and is of itself a sufficient warning that all should abstain from kissing members of the carnivora—a habit which, both with dogs and cats, is, alas, too frequently indulged in by the tender sex.

Birmingham.

[1] THE LANCET, Feb. 20th, 1875, p. 265.
[2] Archives de Médecine, April, 1882.

A CASE OF

FULL-TIME EXTRA-UTERINE PREGNANCY; FŒTUS LODGED IN A CAPSULE OF THE OVARY IN A PERITONEAL SAC RESEMBLING THAT OF THE TUNICA VAGINALIS.

BY JAMES OLIVER, M.D., F.R.S. EDIN., F.L.S.,
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A WOMAN, aged 33 years, who had been married nine years, came under my care at the Hospital for Women on Dec. 31st, 1902. She had had three children and one miscarriage. The last child was born three and a half years previously and since the birth of this child she had enjoyed good health. On Jan. 12th, 1902, the patient menstruated as usual and thereafter no hæmorrhagic discharge from the vagina was noted until Dec. 13th—i.e., during a period of 11 months there was complete amenorrhœa. The hæmorrhagic dischage which appeared on Dec. 13th continued without cessation until I removed the fœtus and placenta by laparotomy on Jan. 1st, 1903. Although this hæmorrhagic discharge flowed continuously for 18 days it was never large in amount and it ceased immediately after the operation. When the menstrual discharge failed to make its appearance in February the patient considered herself pregnant and as the gestation ran its full course without producing one symptom different from those which she had experienced during her previous pregnancies she did not seek any opinion regarding her condition until she observed that in spite of the reappearance of menstruation the abdomen did not diminish in size. The patient felt the movements of the fœtus for the first time about the end of June, but she thought that she never felt them after about the middle of October. Pain was never complained of and no labour-like pains were ever experienced. The physical signs were as follows. The abdomen, I found, was occupied centrally by a large globular swelling extending from the pelvis to four and a half inches above the umbilicus. Palpation detected the various parts of the fœtus, but these were not more easily defined than we find them in many cases of uterine gestation. No sounds were detected on auscultating the tumour. The breasts displayed the characteristic appearances of pregnancy and from both colostrum was readily obtained. The cervix uteri, which was not specially soft, was but little deviated from its normal position in the pelvis. The body of the uterus could not be defined and separated from the abdomino-pelvic swelling, but the cervix did not appear to be structurally continuous with the latter.

Operation was performed on Jan. 1st, 1903. The abdomen was opened mesially between the pubes and umbilicus. On account of the then revealed relationship of the pelvic organs to the tumour and as there was promise that I might remove intact the sac containing the fœtus and placenta I extended the incision to four inches above the umbilicus. The right mesovarium and mesosalpinx were spread out over the lower right half of the tumour and in consequence of this state of

[3] Patrick Manson, M.D., LL.D.: Tropical Diseases, 1898.

affairs the posterior wall of the uterus was closely applied to the left anterior surface of the tumour. The uterus was slightly enlarged. The tumour elsewhere was enveloped by, and adherent to, omentum and bowel. The right mesovarian and mesosalpinx were ligatured and severed from the tumour and the uterus thereafter sank down into the pelvis. The omental and bowel adhesions were then dealt with and after freeing these the tumour was found to have a broad and thick attachment to the posterior abdominal parietes. The sac containing the fœtus and the placenta was drawn out of the abdominal cavity and pressed over towards the left flank. It was freely incised and the fœtus and placenta were now extracted therefrom. The wall of the sac varied in thickness from a quarter to three-quarters of an inch except over a small area about 2½ inches in diameter at its upper and right border where it was extremely thin. It was thickest towards its junction with the posterior abdominal parietes with which it appeared to be structurally continuous. On this account and because the placenta had been implanted over this situation I excised the anterior half of the sac and stitched the remaining portion to the anterior abdominal wall, leaving an opening of sufficient size to allow of free drainage. Eventually the inner lining of the sac was shed piecemeal and on Feb. 3rd granulation from the bottom had so progressed that the cavity was almost obliterated and convalescence was well advanced.

The above is the fifth case of full-time extra-uterine pregnancy which I have had to deal with and all have been operated upon successfully. In two out of my five cases the fœtus arrived at maturity without one symptom different from those of a normal uterine pregnancy being experienced. In three there had been occasionally a hæmorrhagic discharge from the vagina during the life of the fœtus. In these three pain more or less severe had been complained of from time to time during the evolution of the pregnancy but in none of the five cases were labour-like pains experienced, not even at or about the time when the fœtus probably died. In two only was there extrusion of decidual membrane per vaginam. In one case only was there elevation of temperature and in this suppuration of the sac had occurred and the fœtus floated in about six pints of creamy inodorous pus. In three the fœtus and placenta were lodged in the substance of the broad ligaments: two were on the right side and one was on the left. In one only of these broad ligament cases was I able to extract the fœtus from its nidus without opening the peritoneum; in the other two the reflection of this serous membrane from the broad ligament on to the anterior abdominal wall had not been sufficiently elevated to allow of this, consequently the upper portion of my incision opened the peritoneal cavity in both more or less extensively. In two of my five cases the peritoneum was incised co-extensively with the abdominal wall generally and the tumour containing the fœtus and placenta was to all intents and purposes in both covered in its entirety with peritoneum of its own. One of these, which was published in THE LANCET of July 25th, 1896, p. 241, was undoubtedly an example of ovarian gestation; the other is the case which I now record and in this the fœtus and placenta were lodged in a peritoneal sac—a sac similar to the so-called ovarian capsule found in some vertebrata. This sac, except at its right upper border where it was thin and appeared to be composed of adventitious membrane, was dense and thick. Originally it communicated more or less freely with the general peritoneal cavity but at an early stage of the gestation it became closed by new membrane and in this way the very thin portion just referred to may be accounted for. At first it was difficult to explain the attachment of the sac to the posterior abdominal parietes, but this became comprehensible when one recalled that in some cases the ovarian capsule is formed in a peculiar manner by division of the ovarian igament and that in such the ovarian ligament may be traced in the posterior abdominal parietes up to the level of the lower border of the kidney. The ovarian capsule is a structure quite distinct from the ampulla of the tube and in some cases the tube traverses for a distance the parietes of this capsule. In operating upon cases of intraperitoneal hæmatomata resulting from ectopic gestation one occasionally finds the ovary more or less concealed in a peritoneal sacculus and I am inclined to think that this is an abnormality of not infrequent occurrence. In cases of full-time extra-uterine pregnancy and quite independently of any operative interference the menstrual function tends to reassert itself in from four to 12 weeks after the death of the fœtus—i.e., at about the same time as after normal delivery when the child is either born dead or is not suckled. It is noteworthy, however, that although the menstrual discharge is not, as a rule, more profuse it is apt to be more prolonged in the former group of cases.

Gordon-square, W.C.

NOTE ON THE ETIOLOGY OF THE SLEEPING SICKNESS.[1]

BY ANNIBAL BETTENCOURT,
AYRES KOPKE,
JOSÉ GOMES DE REZENDE, JUN.
AND
ANNIBAL CORREIA MENDES,
MEMBERS OF THE PORTUGUESE COMMISSION.

THE bacteriological researches which we have undertaken in order to illustrate the etiology of sleeping sickness were systematically carried out principally on those organs and tissues of the body in which, guided by the knowledge of former pathological investigations and by the results obtained in the first necropsies which we made, we knew that the principal lesions of the African disease, which is anatomically a meningo-encephalo-myelitis, are found.

In our first report, dated June 9th, 1901, regarding the six cases observed in Principe, we said that the preliminary and restricted work which up to then had been accomplished seemed to "guide us in the sense of the infectious nature of the sleeping sickness." Two months afterwards (August 10th), in Loanda, we first proved the existence of a diplo-streptococcus in the cerebro-spinal fluid *intra vitam* (six positive results in nine cases) and in the subarachnoid exudate (13 times in several necropsies which were performed); the principal characters of the germ could only be demonstrated in an imperfect and summary way owing to the absolute impossibility of making a complete study of it up to that date. These results were published in September, 1901.[2] In Lisbon (August 7th, 1902) we finally gave a demonstration, illustrated by diagrams and by the exhibition of specimens, of cultures, and microscopical preparations which had been collected in the course of a great number of researches from the cerebro-spinal fluid obtained by lumbar puncture *intra vitam*, and from the exudate and fluid of the ventricles obtained after death, from the blood, ganglions, and spleen, demonstrating also in numerous microscopical sections, especially of nervous tissue, the existence of the parasite previously described lying within and outside the vessels. We therefore particularly pointed out, in order to admit of no doubt, that the micro-organism in question ought to be included in the streptococcus group and we proposed to give to it the name of "hypnococcus."[3] The following were our words: "The general description of the principal characteristics of the hypnococcus being given, let us see if it is possible to determine its place in bacteriological classification. We rather considered it, in our first report, as a type of transition between the streptococcus and Fraenkel's diplococcus. We can, however, affirm to-day that it is easy to distinguish it from the latter. It is enough to say in order to separate it from Fraenkel's diplococcus that it grows on gelatin and in other media at a temperature lower than 24° C. But we wanted to go further and we followed the plan proposed by His to establish the differential diagnosis between the pneumococcus and the bacteria of the streptococcus group. Water is mixed in equal portions with the serum of oxen, properly alkalinised and sterilised, and we add 1 per cent. of inuline. This sugar is fermented by the pneumococcus and a change takes place in reaction, from alkaline it becomes acid and causes the coagulation of the medium. Our diplococcus grows well in His's fluid and the reaction is not modified nor does the

[1] This note belongs to the first part of the chapter, "Recherches Bactériologiques," of our report now in the press.

[2] Doença do Somno: Relatorios enviados ao Ministerio do Marinha pela Missão Scientifica nomeada por Portaria de 21 de Janeiro de 1901, Lisboa, 1901.

[3] Doença do Somno. Trabalhos executados até 6 de Agosto de 1902, pela Missão enviada a Angola pelo Exmo. Ministro da Marinha, composta de Annibal Bettencourt, chefe da Missão, Ayres Kopke, José Gomes de Rezende, jun., e Annibal Correia Mendes. (Revista Portuguesa de Medicina e Cirurgia, Nos. 139 a 144, Agosto a Outubro, 1902.)

fluid coagulate even after a month's stay in the incubating oven."

We read lately in a medical journal[4] a previous report of the bacteriologist Castellani, a member of the English Commission sent to Uganda to study the sleeping sickness, in which he found while making his investigations in the same manner as we had already done a streptococcus in the cerebro-spinal fluid of patients during life and after death, which the author thinks is a different one from ours. This idea probably must be due to the fact that Castellani only knew of our first reports, which were erroneously translated,[5] in which the description of our bacteria might give place to some doubts in regard to its bacteriological classification.[6] However, after this work we described it more precisely and considered it as belonging to the numerous streptococcic group (August 7th, 1902).

It is necessary to say that, though some divergencies exist between what we said in our first report regarding the bacteria and the one which Castellani found in Uganda, they are not important, and we think do not justify Castellani in establishing such a radical distinction. It might be considered that the difference either proceeds from the diversity of the two bacteria or from the conditions under which the observers worked. Castellani considers only the first proposition and he completely forgets the second, which was in reality the principal one. The proof of the small value of the facts put forward by Castellani to establish this difference is shown by himself in the way in which he concludes his report, being apparently exactly of the same opinion as we were in August, 1901. We then said: "As to the bacteriological classification of the diplo-streptococcus only further experience and time can decide. Its analogies with Fraenkel's diplococcus on the one side and with the streptococcus on the other are certain; but the organism cannot be with certainty relegated to either group, though there is close relation between the two, as all bacteriologists allow. What we have said until now of our diplococcus is that it seems to be a transition between Fraenkel's diplococcus and the streptococcus." Castellani says the following about the bacteria which he found: "From the description just given I think that this germ must be considered a new variety of streptococcus. Every bacteriologist knows how difficult it is to differentiate sharply the varieties of streptococci on account of the numerous transition forms that occur, even a sharp separation between the streptococcus pyogenes and the streptococcus lanoceolatus (Fraenkel's diplococcus) seeming to many authors to be impossible." Lower down he says: "I think that this organism is a distinct variety of streptococcus, to be classed between the streptococcus pyogenes and the streptococcus lanceolatus (Fraenkel's diplococcus), and it might be called the streptococcus of the sleeping sickness." This means that Castellani and ourselves in our first reports both came precisely to the same conclusion and expressed ourselves in identical terms. We cannot understand how this could happen if in reality distinct species were in question, the studies being made quite independently one from the other. The same impression on the investigators having been left, although there was a considerable difference of time and place at which the investigations were made, can only signify that the result of the researches was the same, or, in other words, that the two micro-organisms isolated by us in the West of Africa and by Castellani in the East are the same.

Let us see, however, upon what basis Castellani considers his bacillus to be a different one from ours. We are sorry that he did not see the Portuguese journal in which we published our second work, which was of much earlier date than his, for on reading this all doubts should cease and everybody would think it superfluous to speak of a question of priority. Castellani says, as regards the diplo-streptococcus of the Portuguese, he does not think that any confusion can arise. "The Portuguese state that the culture of their germ generally failed every time on the usual media like agar, gelatin-agar,[7] &c., and with gelatin they never succeeded in obtaining cultures." The only differences, then, are merely that our cultures nearly always failed in the usual media and that we did not obtain them on gelatin. We said, conformably to the text of our report, "The diplo-streptococcus found by us grows badly in nearly all the nutritive media usually employed. The bouillon, agar-agar, simple or glycerinised, nearly always fail. The liquid proposed by Martin for the cultivation of Löffler's bacillus and obtained by the maceration of the pig's stomach gives a much better result, especially if we can make it solid by the addition of agar." What is concluded in our text is that the bacteria grows badly, but this does not mean that it does not grow at all. We add that it grows much better in Martin's media, for one of our micro-photographs represents some of the colonies grown on the surface of the agar of this author. These facts ought to have led Castellani to suppose that the absence of constant growths in the media referred to proceed more from their defects than from the biological peculiarities of the bacteria. In fact, in our first report we showed that the failure to obtain a growth was really owing to the short time occupied by our researches and to the methods we employed for isolating the organism.

We may say that for the preparation of our media we always employed Witte's peptone, which being very rich in albumoses is not so favourable for the germination of the bacteria as some others are. Nicolle and Remlinger especially point out this fact in their excellent book, "Traité de Technique Microbiologique" lately published; we verified this recently on different bacterial species including the hypnococcus. This last fact is no less important and may have greatly influenced our results, especially in the inoculations performed with the products procured from the human body because in these circumstances, as it is known, the bacteria are more easily influenced by the unfavourable conditions of the media. In Martin's media, which have for bases a peptone prepared *ad hoc* in the laboratory, the same thing does not happen and that explains the better development. Finally, Wassermann isolated in acute articular rheumatism a micro-organism belonging to the streptococcus group which only grows in strongly alkaline media, to which has been added Chapoteau's peptone, cultures not being obtained when Witte's peptone is used, as usually employed in Germany. All this is set aside because for a long time we have managed to obtain, as Castellani did, development in all these media. Months before the publication of his work we published a description of our cultures on agar, bouillon, and potato, in which we obtained identically the same results as Castellani. We also point out the absence of the coagulation of milk and the absence of gas production in the media containing glycose, in respect of both of which Castellani agrees perfectly with us. Finally, there is now no question of its growth on gelatin, for the simple reason that we have already obtained cultures in this medium in Lisbon—flesh pepton-gelatin and Martin gelatin. These cultures were exhibited at the time of our conference (August 7th, 1902) and the description of them may be found in the *Revista Portugueza de Medicina e Cirurgia Praticas*, where we state the reasons to which we attribute the negative result obtained in Loanda.

We never made direct inoculations of morbid products in this medium, so we cannot say if they would be successful, nor does Castellani say in describing the streptococcus if he made use of all the media which he speaks of for the primary cultures or if some of them were only employed in the subculture; this makes a great difference with regard to the results, as is known, in regard to various species, amongst which we may cite the diplococcus intracellularis meningitidis of Weichselbaum-Jaeger. Briefly we maintain that all the characters which Castellani says distinguish the two germs do not exist and consequently the difference between them does not exist also. On the contrary, what is indeed remarkable is our agreement in various points of the description. Some have already been mentioned. We have also shown various instances of form and size, and the existence of groups from the isolated diplococcus to the chains (which may be shorter or longer) and have obtained these from the human subject or from the cultures to which Castellani also refers. The characters of the cultures on bouillon and the aspect which the hypnococcus takes according to this author's description, all is in complete agreement with ours.

We further point out, before concluding, that our investigations were not limited to culture and microscopical examinations of the pathological fluids of the organism. We also studied numerous microscopical sections, especially those of the nervous tissue, and were the first to find and mark out the presence of the hypnococcus. Such sections were also

[4] THE LANCET, March 14th, 1903, p. 723.
[5] Journal of Tropical Medicine, May and June, 1902.
[6] Immediately after our revised translation was published we sent to the editor a note pointing out the numerous mistakes. It is, however, most strange that this was never published.
[7] We never spoke of this medium because we never employed it.

seen by Patrick Manson some time ago in London, by Marmorek of the Institut Pasteur in Paris, and were finally presented by Mense at the last Colonial Congress assembled in Berlin.* How can it be suggested that the bacteria so often isolated by us in pure culture may not be the same as the one seen in the sections and exudates, the identical morphology being given? and how can the germ isolated by Castellani from the same regions of the body where we obtained it during life and post mortem, not be the same we saw in our microscopical sections?

After all this there is not the slightest doubt that Castellani's bacterium is the one which we described and that his investigations are a complete confirmation of ours. This is the original and important fact. The priority in the question is relatively a secondary one, as no one can honestly and *sine ira* contest that it does not belong to us; but the works of this member of the English Commission, done quite independently of ours and in quite different and distant regions, do not in the least lose their merit or the important signification they bear for the clearing up of the etiology of sleeping sickness. It is, in fact, the first time that etiological researches of the African lethargy have been thoroughly verified and identical results arrived at.†

ON A CASE OF ARTERIAL OCCLUSION AND GANGRENE.

BY ANDREW DUNLOP, M.D. EDIN.,
CONSULTING PHYSICIAN TO THE JERSEY GENERAL DISPENSARY AND FEMALE ORPHANS' HOME.

IN November, 1899, I was consulted by a retired officer of the army on account of pain in the left leg and foot. He was a spare, active man, in his fifty-third year, with a complexion ruddy from enlarged capillaries and with the skin of the hands also of a high colour. In India, when a young man, he suffered from malarial fever and dysentery and he also had dysentery while in Egypt in 1882. Of late years he had been liable to dyspepsia, and in 1898 he had tobacco amblyopia which afterwards improved. Some time in the summer of 1899, I think, I had attended him for painful redness and swelling affecting the ball of the left great toe and running up the dorsum of the foot between the first and second metatarsal bones. The pain which he complained of when I saw him in November was intermittent, occurring in paroxysms which often came on in the early hours of the morning. It ran down the front of the leg and along the dorsum of the foot and was felt in the ball of the big toe and the distal part of the foot. The foot was sometimes dark red and congested, when it felt hot, and sometimes it was pale and cold, conditions resembling the syncopal and asphyxial states of Raynaud's disease. Stiffness and some pain behind the knee-joint were also complained of. The heart, though perhaps a little weak, was perfectly normal and there were no indications of atheroma or arterio-sclerosis in any of the accessible arteries. The urine was free from albumin and sugar and in all respects normal. The lungs were healthy. The tongue was somewhat furred and there were some dyspeptic symptoms but the abdominal organs were otherwise healthy. The temperature was normal. Later, pulsation was observed to have ceased in the posterior tibial artery and the dorsal artery of the foot; the pains became more frequent and severe and the varying conditions of heat with dusky redness and coldness with pallor became more marked. Pains of a slighter degree were also felt in the right leg and down the arms, and the right foot also showed some signs of varying congestion and pallor, as also did the hands.

In the spring of 1900 he improved somewhat for a time, but about May he got worse again and a black spot formed on the under part of the distal phalanx of the great toe and another on the tip of the little toe. The extreme tip of the little toe gangrened and the process there made no further advance but it slowly went on in the big toe till it was entirely black and mummified. A distinct line of demarcation, well beyond the joint, formed in, I think, the month of July, but it made one or two advances during the next month or two. In September there was a good deal of constitutional disturbance due, apparently, to septic absorption, the temperature rose, and he had a severe attack of aphthous stomatitis. At the beginning of October, as the line of demarcation was making no further advance, Mr. A. E. Hind removed the gangrened toe by cutting through the first phalanx where the separation had taken place down to the bone, just beyond the metatarso-phalangeal joint. After the operation the patient improved rapidly and in a month or two the wound had healed and he was able to move about again.

From the end of 1900 to the spring of 1902 the patient was in excellent health, though he had occasional pains in the legs. About the month of April he consulted me on account of occasional attacks of sudden and severe pain at the bottom of the sternum and over the præcordial region, seizures which had very much an anginal character. A little later he had pain running down the sciatic nerve on the right side, and some time in May he began to have sharp attacks of pain running down the front of the right leg, the paroxysms very frequently occurring in the early morning as they had done in the other leg. In June the right foot was frequently, indeed mostly, hot and congested, and sometimes cold and pale, and soon no pulsation could be felt in the posterior tibial or in the dorsalis artery. About the end of the month two black spots appeared on the sole of the foot, one on the heel and the other on the under surface of the little toe, just on the bend of the first joint. In July suppuration occurred at the seat of the black spot under the toe and some matter was let out by a small incision. In August unhealthy-looking ulceration began to extend from this point, gradually spreading two or three inches up the outer side of the foot, and the toe became purple and gangrene set in. By the middle of the month the toe and the ulcerated part of the foot were completely gangrened and a line of demarcation had begun to form; but the next toe was evidently becoming implicated. All this time the patient's condition remained good. The temperature was normal or only slightly raised sometimes. The pulse was good but occasionally quick and not very strong. The urine was normal.

About the middle of September the fourth toe was gangrenous and the line of demarcation was advancing onwards and upwards. The constitution was now showing the effects of the disease. The temperature was frequently raised, though not often above 100° F., and at the end of the month there was a rather sharp attack of aphthous inflammation of the mouth and throat, as during his last illness. There was also an aphthous ulcer on the conjunctiva of the left eye which gave rise to inflammation. During all this time the pain in the leg and foot was frequent, almost constant, and often very severe.

On Oct. 4th, as the line of demarcation seemed at last to be stationary, the gangrened parts were removed by Mr. Hind, who cut through the fourth metatarsal bone and disarticulated the fifth at its tarsal articulation. The raw surface left looked pale and bloodless. About three weeks later the second and third toes had become gangrenous and a line of demarcation had formed on the dorsum of the foot which included them, though it was not developed on the under surface. The great toe had also a dry gangrenous patch on the tip and the nail had been removed owing to suppuration in the matrix. It was then decided that the dead and dying parts should be removed, and Mr. Hind, assisted by Dr. J. R. Muir, R.N., separated them by disarticulating the remaining four metatarsal bones at their tarsal articulation and making a flap of the sound skin of the sole to cover the wound made at this operation and the still incompletely healed one left by the last.

For a day or two after the operation the temperature rose in the evening to 102° and there was some general constitutional disturbance, but great improvement of the general condition soon set in. The mouth, which was still sore, got better, the inflammation in the eye gradually subsided, and an ulcer on the back part of the heel which had given some trouble began to mend. A week or ten days after the operation a part of the flap which was stretched over the internal cuneiform bone sloughed and the bone protruded through the opening. The projecting part became necrosed and on Dec. 1st it was found to be loose and was easily

* Archiv für Schiffs- und Tropen-Hygiene, Band vii., 1.

† It is convenient to correct here a mistake in the English translation of our first report. It was said that we isolated constantly the diplococcus from the blood. This is absolutely incorrect. What we clearly confirmed was that in four cases examined in this point of view we only found it once. To-day we can add that we have had two positive results in seven cases. Castellani only isolated it once. We have here another point in which Castellani's researches agree with ours.

removed, leaving a vigorously granulating surface behind it. After the operation the attacks of pain still continued but they became less frequent and severe. There was also occasional pain in the left leg and foot and for a time the sole of the foot was sometimes congested and occasionally the foot was pallid. Pain was also complained of in the left arm and the fingers of both hands became bloodless now and then. By the end of January the wound had completely healed, though there was still some discharge coming from under the flap, and the patient was looking well and beginning to get about.

At about the middle of February, however, an apparent obstruction of the right femoral vein occurred. There was pain in the groin, the stump of the foot became swollen and purple, and there were paroxysms of severe pain in it. The whole leg was œdematous and the protruding bone in the stump became inflamed and bare. A fortnight later a similar attack took place on the left side and it was over a month before both legs had recovered and even then there were frequent pain and great tenderness in the stump of the right foot. The patient's health meanwhile improved greatly and by the middle of April the disease seemed to have entered upon another period of quiescence, though the foot still continued to give pain.

Though a description of the condition of the affected arteries cannot be given—fortunately for the patient—and though perhaps the possibility of slow-forming thrombus in atheromatous or sclerosed vessels cannot be quite excluded, this case has all the appearance of one of Friedländer's arteritis obliterans.

The heart was normal, the urine was free from albumin and sugar, and there was no evidence of atheroma or sclerosis in any of the accessible arteries. The obstruction could not have been caused by embolism, the lapse of time between the commencement of the symptoms and the occurrence of gangrene was too great. The arterial occlusion was evidently a gradual one. In this connexion the varying congestion and pallor of the feet are interesting, as they recall the symptoms in Raynaud's disease. This was most marked in the first attack; in the second attack the right foot was mostly congested and hot. The pains, from their severity and mode of occurrence, often led me to suspect neuritis, though there was perhaps not more wasting of the leg muscles than could be accounted for by disuse of the limbs and I did not notice any abnormalities of cutaneous sensation. The anginal attacks are also of interest when it is remembered that in specific cerebral arteritis—a typical obliterative arteritis—such attacks have been noticed and found to be due to affection of the coronary arteries. In this case, however, the attacks lasted for only a short time and did not recur, so they were probably of a purely neuralgic character. There were also pains in the arms, mostly the left arm, and the fingers were often dead and pale and the hands congested.

Friedländer[1] in his paper gives no clinical account of the disease; he confines himself to a description of its pathology and morbid anatomy. The morbid process begins by inflammatory cell growth in the inner coat which is thickened at the expense of the lumen of the artery. The other coats become affected and subsequently connective tissue formation sets in and the vessel is transformed into a fibrous cord. Complete obstruction is sometimes delayed by the continuance of the first, non-fibrous, stage in which the artery may not be completely blocked by the yet soft granular tissue, or occlusion may be hastened by the formation of thrombi in the partially obstructed vessel. The veins may also be affected. Friedländer says that obliterative arteritis is not so often primary as secondary to disease of the surrounding tissues.

Von Winiwarter[2] relates a case closely resembling that of my patient. The affected foot was amputated about four inches above the malleoli and he gives a most careful and detailed account of his examination of the parts that had been removed, pointing out that the morbid changes in the vessels were those previously described by Friedländer as arteritis obliterans. The veins were affected as well as the arteries and he also found that the posterior tibial nerve and its branches were involved and nearly doubled in thickness.

Dr. Prioleau in his Thèse (Paris, 1887) on "Rétrécissement Généralisé des Artères" does not seem to differentiate obliterative arteritis from arterio-sclerosis, but amongst his cases are some which resemble that of my patient and he describes morbid appearances similar to those recorded by Friedländer and von Winiwarter.

Dr. F. W. Mott has an excellent article on obliterative arteritis in vol. vi. of "Allbutt's System of Medicine," and both Dr. Prioleau and Dr. Mott give a full list of references, only one or two of which, however, I have had the opportunity of consulting.

St. Heliers, Jersey.

[1] Ueber Arteritis Obliterans, Centralblatt für die Medicinischen Wissenschaften, No. 4, 1876.

[2] Ueber eine eigenthümliche Form von Endarteritis und Endophlebitis mit Gangrän des Fusses, Archiv für Klinische Chirurgie, No. 1, Band xxiii., 1878.

A FURTHER NOTE ON THE THERAPEUTICS OF A 10 PER CENT. SOLUTION OF SODIUM CINNAMATE IN GLYCERINE INJECTED SUBCUTANEOUSLY.

BY LOVELL DRAGE, M.D. OXON.

IN the preliminary note published in THE LANCET of July 12th, 1902, p. 66, the groundwork of the treatment was briefly mentioned. Surprise has been expressed that a drug could profoundly alter the conditions of two diseases which are apparently so dissimilar in every respect as cancer and tuberculosis. However, there are points connected with them which appear to lead in the direction of the thought that, whatever dissimilarity there may be in their external manifestations, the conditions which precede the alterations in the structure of the cells which are affected are alike in type and that the general conditions of health in patients diseased either in the one or in the other way are equally alike in type. The difference in the alteration in structure is in detail, profound as that difference is. The difference in the general conditions of health is equally in detail, but not so fundamentally. In both diseases there are conditions intimately connected with the cells attacked which precede the conditions of actual disease and in both the results of the disease are manifested by the condition known as cachexia, varying in details even amongst those smitten by the taint of the two diseases. It is necessary, therefore, in the case of both diseases to consider very carefully the conditions affecting the cells themselves before they are attacked by the one or the other disease. Every cell, however low in the scale of organisation, has certain properties of its own, functional as well as structural. These are properties which may be designated as inherited properties in the case of some, acquired properties in the case of others. It is impossible to state that in cells affected by these diseases there is any evidence to show that both properties do not exist, and, indeed, it may be stated quite definitely that in the absence of inherited properties those acquired are only with difficulty obtained. If this be accepted there can be little difficulty in finding the reason for the many and great differences not only in the structural alterations noted in both diseases but also in the progress and clinical history of them. Varied as are the properties inherited by cells much more varied are their external conditions and surroundings. The variations which can be produced and perpetuated in many living cells are well known not only to the scientist but also to the stockbreeder and the gardener, although the latter know them in bulk, the former in sample. With the differentiation of the bacillus of tubercle and the demonstration of its connexion with the causation of the structural alterations in the cells which it attacked an important phase of knowledge was undoubtedly opened and so far as the improvement in the treatment of the disease goes there has resulted something. However, it never appeared to me that there was reality in that improvement. Under various treatments and under no treatment at all many patients become well—that is to say, that the masses of cells which had been attacked by the disease became cured in the manner adopted by nature.

The main lines upon which treatment has been generally based have been the improvement of the general condition of health by providing to the blood circulating in the vessels an abundant supply of oxygen and of nourishing food. It has been difficult in most cases, if not all, to say whether the drugs usually administered had any good effect, and still more difficult to find a satisfactory physiological reason for

their administration. For many years past the speculation has ever been present with me, Why should it be possible to control the bleeding resulting from fibroid tumours of the uterus by the continued internal administration of a strong decoction of cinnamon sticks, and, indeed, to reduce their bulk? It appeared probable that something was supplied through the circulation to the tumour which influenced its growth. Subsequently, on the administration of the oil in cases of tuberculous and cancerous affections, and especially the latter, it appeared as if some modification of the progress of these affections was achieved. This being the case, I thought it right to ascertain the effect of placing a patient under treatment before removing a breast affected by scirrhous cancer. I therefore treated the patient before operation with oil of cinnamon and continued the treatment for three months afterwards. As the breast was only removed in the spring of 1901 it is impossible to speak definitely, but there is one point which struck me very forcibly and that was the rapid improvement in the health of the patient. I do not recollect any patient whose breast was removed for cancer to improve so rapidly, or to remain in such good health as this patient preserves up to the present date. Not only is this so, but in the spring of last year the patient showed me an old sebaceous cyst in her back. This had all the appearance of an atrophic cancer. She told me that she had had it for years, but did not think of mentioning it to me when I removed her breast. I was very anxious that the sodium cinnamate should be injected forthwith, but she refused any sort of treatment. She now tells me that "the place has dried up with a sort of scab."

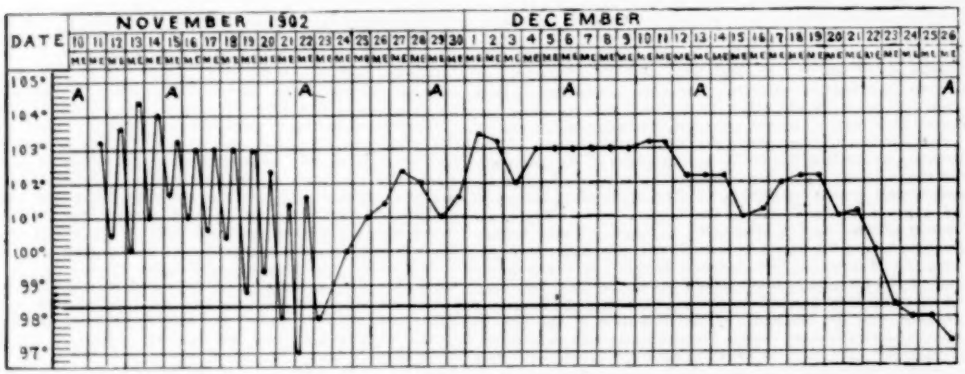
The inference which I draw, although it is obvious that others may, and probably will, be drawn, is that both the breast and the cyst were affected by cancer at or about the same time and that the oil of cinnamon treatment profoundly modified the progress of the growth of the cancerous cyst and has so far prevented any return of the cancer of the breast. It may here be remarked that the breast was only removed by the old fashioned method and that the axilla was not opened up.

The period has now arrived when I can take up the thread of my discourse at the date of the publication of the paper which I wrote for THE LANCET last year. Since that date I have been actively using the glycerine solution of cinnamate of sodium. The accompanying chart will demonstrate the effect of the drug upon an attack of acute pulmonary tuberculosis in a young man, aged 28 years, engaged in a printing office. I was asked to undertake his case by a patient of mine who told me the distressing and pressing nature of the case. A young man, married, with a young child and a wife dependent upon him, was told that he was a bad case and unlikely to live. He was at the time an out-patient at the Brompton Hospital and was rapidly losing flesh. His illness began in the autumn whilst he was taking a holiday. On Oct. 10th he first saw a medical man who eventually told him that his right lung was affected and that he must attend the Brompton Hospital, a course which he adopted. Physical examination revealed comparatively little, expectoration was very small, there were no moist sounds to be heard, but breathing on exhalation at the right apex was prolonged slightly and more noisy than was normal. I agreed with the other medical opinion that the case was one of early and acute pulmonary tuberculosis. The chart speaks for itself; the morning temperature was not taken after Nov. 24th. Seven injections of the 10 per cent. solution of cinnamate of sodium were given at the dates marked upon the chart. The man went to his work in the office a week after the first injection and remained at work until the end of the treatment. He gradually put on flesh, improved in spirits, and although there was a considerable amount of cough and expectoration during the progress of the case there was always a continued improvement in health, and the patient at the present time has no cough, is as fat as he should be, and is without any symptoms except those of good health.

A second case to which I should like to draw attention is that of a young girl who had been troubled for some months with chronic diarrhœa. When she first came under observation she was emaciated and passing often more than 12 motions a day. On examination nothing could be detected in the abdomen or chest abnormal in character, but her appearance was that of a tuberculous patient. Various treatments were tried but nothing produced any diminution in the flux from the bowels. The glycerine solution has been injected at varying intervals into the flanks since then. Her bodily condition has steadily improved and the number of actions of the bowels has been diminished by one half. Nothing more can be said at present about the case, but it appears probable that a satisfactory issue will be obtained.

The result of experience of the use of the drug so far has led me in the direction of the belief that in early cases of pulmonary tuberculosis a successful issue may be predicted with confidence and that in all more advanced cases amelioration may be guaranteed with equal confidence. No treatment obviously can restore cells which are destroyed absolutely and if there are not sufficient cells remaining which are capable of performing their work the organ of which these cells are a part can either not perform its functions at all or only in part. So long as healthy cells remain in an organ sufficient to carry on its work, just so long has treatment by cinnamate of sodium or any other treatment a chance of preserving the life of the owner of the organ. The case of early tuberculous laryngitis mentioned in my first communication is arrested and the patient is enjoying good health.

It is not my purpose to refer to other tuberculous cases at the present moment, but one of cancer of the tonsil, with a mass behind the angle of the jaw, presents points of interest. It is a case which has been seen by Mr. H. T. Butlin at St. Bartholomew's Hospital. The cinnamate solution has now been injected at varying intervals since the early autumn of 1902. Although the duration of the growth is not less than 12 months there is no difficulty now in swallowing, one small gland below the large mass has disappeared, and the action of the drug seems to have caused a fibrous incapsulation of the mass behind the jaw; the skin



Case of acute pulmonary tuberculosis in which cinnamate of sodium was injected. A, Injection of 30 minims. Morning temperatures were not taken after Nov. 24th.

is quite freely moveable over the mass. The patient feels little or no pain and generally appears to be in a condition unusually favourable in such a case, so far from the commencement of the disease. I am now using injection of doses as large as 60 minims of a 11 per cent. solution and with apparently quicker results. No symptoms of inconvenience are felt from the larger injection, but the pain caused is of somewhat longer duration. The amount of pain is not very great and this is judged because patients readily return for treatment.

Hatfield.

RESEARCHES ON HIBBERTIA VOLUBILIS.

BY JOHN REID, M.A., M.D., C.M. ABERD.

THE parts of the plant used in the following investigation were the fruit and the pistils which had been preserved by drying. They were obtained from Coraki and Manly Beach, two places in New South Wales. The plant was identified by the late Baron F. von Müller, who has also supplied the bibliography.[1]

Extraction with acetic acid and subsequent precipitation give the alkaloid dillenine; extraction of the residue with boiling alcohol takes up the oil; while by boiling the residue with liquor potassæ a solution of potassium dillenate is obtained, from which insoluble calcium or lead dillenate may be prepared and the acid eventually isolated. On neutralising the potassium salt with lime an acid foam may be skimmed off; it is the colouring matter which I propose to name "stephenic acid" after the late Rev. George Stephen of Fordyce, Banffshire. On precipitation with ammonia the acetic acid extract yields a brown-coloured neutral resin which is insoluble in ammonia, water, and chloroform, but dissolves in acids, forming a tasteless solution. Dillenine is soluble in chloroform which is used for isolating it; acicular crystals are deposited from the solution. The dillenate of dillenine is deposited from the chloroform solution in transparent laminæ more or less perfect. The acetic acid extract contains a little dillenic acid, shown by the sherry colour produced on the addition of ammonia. In spirituous solution dillenine lessens the colouring power of tincture of guaiacum on a cut surface of potato. When heated it becomes charred and burns with an odour of burning feathers. An aqueous solution of the dillenate or acetate precipitates mercuro-potassic iodide and iodurated iodide of potassium. Given internally in doses of less than one grain of the dried substance it causes a lowering of the blood pressure; the pupil also becomes dilated and remains so for a few hours, with disturbance of the power of accommodation.

The oil is thick, almost like palm oil, and possesses the sickly odour of the flower. When boiled with caustic potash it becomes whiter but is not saponified. By keeping it becomes resinous in appearance. It is soluble in benzene, in which menstruum dillenine and dillenic acid are insoluble. When swallowed it has an irritating effect on the tongue and gullet; it probably possesses aphrodisiac qualities.

Dillenic acid is very insoluble in water and when pure is a dark resin-like powder with an acid reaction. Its solution in water does not give a precipitate with perchloride of iron, gum, or gelatin. Stronger solutions of its salts with alkali metals show the following reactions:—1. Ferrous sulphate gives a colourless flaky precipitate in a solution which is greenish by transmitted light and dirty black by reflected light; the precipitate is soluble in dilute nitric acid, the solution being light sherry coloured by reflected and transmitted light. 2. Tincture of perchloride of iron gives similar reactions, except that a light sherry colour takes the place of the green colour; some flaky deposit (dillenic acid) appears to be undissolved in both cases on adding nitric acid. 3. Silver nitrate gives a dirty brown precipitate, subsiding very speedily, insoluble in dilute nitric acid but readily soluble in ammonia. 4. Silver stains on linen (recent) or on the fingers readily clear up on treatment with dillenate of soda or ammonia and free ammonia. 5. Dillenic acid dissolves sodium bicarbonate with effervescence; the salt is lighter in colour than the ammonium or potassium salts. Lead precipitates dillenic acid partially in a neutral solution or one containing a vegetable acid only and precipitates it completely in an alkaline solution. The precipitate formed with alum may be washed; it has faint astringent properties. Lime water precipitates it completely if in excess or in presence of an alkali and acetic acid redissolves the precipitate. A potassium salt gives a precipitate (*a*) with acetic acid; the filtrate from (*a*) gives a further precipitate (*b*) with nitric acid, and the filtrate from (*b*) gives with alum a precipitate (*c*) which is much less bulky than that obtained with acetic acid. Dillenic acid seems to nullify guaiacum colouration of potato and gives no precipitate with the reagents for alkaloids. The aqueous solution of the acid or of an alkaline salt keeps well (antiseptic). It is very insoluble in rectified spirit and entirely so in chloroform. An earthworm placed in a very weak solution gave two or three convulsive tremors of its longitudinal muscles and died, presenting a flattened appearance before and after death. Possibly the substance may be valuable as a germicide. In the human subject given internally in doses of less than one grain of the dried substance it causes slight griping, nausea at the throat, and salivation, with black motions (liver stimulation). There is no irritant effect and the taste is if anything pleasant and sweetish. Lime water is a speedy antidote. Dillenate of zinc may be used as a dressing.

Stephenic acid, like carminic acid, is insoluble in water. When washed it sinks as a granular precipitate and yields with ammonia stephenate of ammonium having the colour of carminate of ammonium. The ammonium salt stains nuclei a beautiful rose colour which will not wash out like carmine and may be mounted in dammar; glycerine dissolves it so slightly that specimens stained with it may be mounted in this medium. Stephenic acid after drying is more difficult to dissolve than when it is freshly prepared. The ash of the plant consists chiefly of alumina, silica, and iron.

Southfields, S.W.

[1] F. von Müller: Fragmenta Phytographiæ Australiæ, vol. vii., p. 125; vol. xi., p. 94. Bentham: Australian Flora, vol. i., p. 19. Ersch and Gruber: Encyklopädie. Thunberg: Transactions of the Linnæan Society, 1800. Rosenthal: Synopsis Plantarum Diaphoricarum, 1882.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON THE RETARDED PULSE WAVE IN AORTIC REGURGITATION.

BY WALTER BROADBENT, M.A., M.D. CANTAB., M.R.C.P. LOND., M.R.C.S. ENG.,
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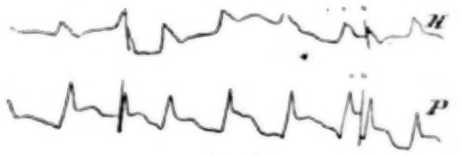
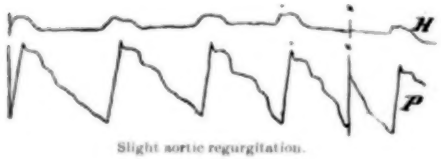
THE accompanying four tracings were taken with an instrument of precision, Mackenzie's cardiograph, attached to a Dudgeon's sphygmograph, and go to prove Sir William H. Broadbent's contention that the pulse in aortic regurgitation is more delayed the greater the regurgitation. The first tracing was from a normal heart and pulse to show the usual delay, the pulse being 80 to the minute. The second was from a case of slight aortic regurgitation, with very little hypertrophy and a good second sound in the neck, though the diastolic murmur in the chest was very loud. This showed no more delay than in the normal heart. The pulse-rate was 60. The third was from a case of very marked aortic regurgitation with a large collapsing artery. The apex beat was in the seventh space, four inches below and two inches outside the nipple; no second sound was audible in the neck. The diastolic murmur over the aortic and pulmonic areas was much less loud than in the last case. To the hand and in the tracing the pulse and heart appear to be synchronous, but the fourth tracing shows the delay between the carotid and the pulse and demonstrates that the pulse was a whole interval behind the heart, and the pulse-rate being 80 the delay works out at about 0·75 seconds. The delay between the apex beat and the carotid throb and between the carotid throb and the radial pulse were both appreciable to the finger. The interval between the carotid

and radial pulses was decidedly longer than with a normal heart, but that between the apex beat and the carotid was so marked that it raises the question, most difficult

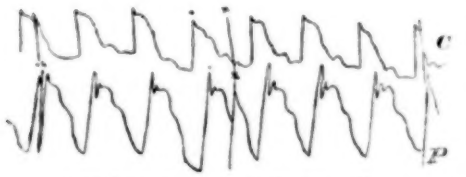


Normal.



Slight aortic regurgitation.

Severe aortic regurgitation.



Carotid and pulse; severe aortic regurgitation.

to decide, how late in the cardiac systole does the pulse wave start from the heart when the aortic valves are practically absent?

Brighton.

MICROSCOPICAL OBSERVATION OF THE GLYCOGEN REACTION.

BY DR. GIUSEPPE SPEZIA.

IN attempting to explain the biological significance of the glycogen reaction and to account for the presence of glycogen in the white corpuscles of the blood the following experimentally ascertained facts must be kept in mind. As I have already mentioned in THE LANCET of March 7th, 1903, p. 655, I found that the glycogen reaction could be produced by means of subcutaneous injections of fats (olive oil or hog's lard), albuminoids (peptone), and carbohydrates (glucose). The presence of glucose and peptone in the blood is proved by the phenomena of glycosuria and peptonuria. I have found that not only has glycogen a positive chemiotaxic action but also that peptone and glucose have it. Moreover the white corpuscles drawn into the capillary glass tubes used in the experiments on chemiotaxis and filled with solution of peptone presented the glycogen reaction, whereas the white corpuscles *in the blood* of the same animals as were employed in the experiments did not present it. These facts prove that the leucocytes contain proteolytic, amylolytic, and lipolytic diastases which enable them to form glycogen from albuminoids, carbohydrates, and fats. It is also known that these latter substances appear in increased amounts in the blood during digestion and in many infectious diseases. Achard and Loeper have stated this with regard to glucose in pneumonia and gastro-intestinal diseases. Becquerel and Rodier have stated it with regard to fats in diseases of the respiratory organs, pneumonia, tuberculosis, and puerperal fever; the occurrence of peptonuria supplies the evidence with regard to albuminoids in pneumonia.

Bearing these facts in mind the glycogen reaction may be easily and with much probability explained as a manifestation of the process by which certain substances abnormally abundant in the blood are converted into glycogen by the action of the polynuclear leucocytes. The hyperleucocytosis which according to my clinical observations accompanies the glycogen reaction may be similarly explained, because these substances have a positive chemiotaxic action. The hyperleucocytosis of infectious diseases is not the first sign of resistance to pathogenic agencies exhibited by the organism. The first sign of this kind is a chemical one characterised by the appearance of the above-mentioned substances in the blood. Hyperleucocytosis is therefore based upon chemical facts.

The glycogen reaction is of practical value from a clinical point of view, for the tests which give it are easily and quickly applied and when the reaction is obtained it points to the existence of hyperleucocytosis. In the contrary event, however—namely, when the reaction is not obtained—I hardly think that the present state of knowledge would justify the inference that there is no hyperleucocytosis.

Turin.

ABDOMINAL PAIN AS A SYMPTOM IN ACUTE LOBAR PNEUMONIA.

BY J. RAESIDE SMITH, L.R.C.P. & S. EDIN., L.F.P.S. GLASG.,

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DURING the last few months several cases of acute lobar pneumonia have come under my observation. In all of these among the initial symptoms was one which is not too strongly emphasised in our text-books—namely, acute abdominal pain. In each case the signs and symptoms were typical of acute lobar pneumonia. I may state that in two of these cases morphia had to be administered subcutaneously on account of the severity of the symptom.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

LONDON TEMPERANCE HOSPITAL.

THREE CASES OF UNUSUAL HERNIA; HERNIOTOMY; RECOVERY.

(Under the care of Sir WILLIAM J. COLLINS.)

FOR the notes of the cases we are indebted to Mr. J. S. Hosford, surgical registrar.

CASE 1. *Richter's hernia.*—A single woman, aged 48 years, was admitted into the London Temperance Hospital on Nov. 12th, 1902, complaining that she had had a lump in the right groin for a year but that four days previous to admission the lump became larger and she had suffered from vomiting and had passed neither fæces nor flatus. Her general condition was good but there were considerable abdominal distension and tenderness and some redness over the swelling in the right groin, which was of the size of a golf ball and was dull and devoid of impulse. An enema brought no motion away. At 1.45 A.M. on the 13th Sir W. Collins under chloroform cut down on the swelling in the right groin. On opening the sac a considerable quantity of sanious but odourless fluid escaped. It was clear that a portion only of the circumference of the small intestine was external to the femoral ring but acutely strangulated. Sir W. Collins

divided Gimbernat's and Poupart's ligaments and freely exposed the whole knuckle of intestine, a portion of which was nipped. About one-third of the circumference of the gut appeared to be involved and this was of a dusky purple tint and covered with a little flaky lymph. It was sharply differentiated from the rest by a grey line of strangulation. It was therefore deemed prudent not to return the damaged gut freely into the peritoneal cavity, but a ring of sutures was passed through the peritoneal and muscular layers of the adjacent healthy portion and the surrounding ligaments and fascia, so as to make the area formerly strangulated face the external wound. The latter was left open and lightly packed with iodoform gauze. Flatus was passed per rectum on the 14th and the general condition was good. On the 16th some fæcal staining was noticed on the dressing and for a week some fæcal matter escaped from the groin, though full motions were passed per rectum. The intestinal wound closed in a few days and the gut was drawn inwards by peristalsis, though retaining a ring of adhesions along the sutured line, thus causing a puckering of the external wound, which closed completely by Jan. 2nd, 1903. The patient was discharged passing normal motions and with no hernia.

CASE 2. *Piece of bone transfixing a hernial sac, simulating strangulated hernia.*—A married woman, aged 64 years, a multipara, had been ruptured for 44 years. On Feb. 26th, 1903, she was "taken suddenly" with pains in the abdomen and the seat of the old rupture—the left groin—became exceedingly tender, and she could not put back the hernia as she generally could. She sent for a medical man who "tried to put it back for three days" and she was then admitted to the London Temperance Hospital. Her general condition was not at all bad, but she had been frequently sick and the bowels had not acted for several days, though an enema brought away scybala. There was on admission a smooth elastic swelling in the region of and resembling a small femoral hernia. It was irreducible and gave no impulse but was excessively tender to handle and the left inguinal region of the abdomen was also very tender to the touch. Sir W. Collins advised operation and under chloroform he cut down and exposed the sac of what appeared to be a hernia. On passing the finger over the surface of the sac he detected a sharp-pointed foreign body. On seizing this and withdrawing it it proved to be a piece of bone one and a quarter inches long and varying from an eighth of an inch to a quarter of an inch in width. This piece of bone was transfixing the supposed sac. A probe was passed along the track of the bone and the cavity was cautiously laid open. It proved to be, as was suspected, a hernial sac communicating through the femoral ring with the general peritoneal cavity, but untenanted. There was no evidence of any recent perforation of gut and how the piece of bone, which was thought to be a rabbit bone, had been deposited in, and made to transfix, the sac could only be a matter of conjecture. The sac was removed, the wound was sewn up, and healing took place per primam. A little cystitis troubled the patient for a day or two during convalescence, but she was quite well and was discharged on March 27th.

CASE 3. *Richter's hernia.*—A married woman, aged 45 years, had suffered from hernia for five years. She was seized on Feb. 20th, 1903, with sudden and severe abdominal pain and she vomited. The bowels were constipated. On the 22nd she was admitted to the London Temperance Hospital. There was then a tense, tender, irreducible swelling in the left femoral region. Sir W. Collins decided to operate at once and under chloroform exposure of the sac showed this to have been ruptured, some sanious fluid escaping. A portion of small intestine was tightly strangulated in the femoral ring. A director was with some difficulty and with great care inserted under Poupart's ligament and the latter was freely divided. It was then seen that only a portion of the enteric cylinder was involved. The strangulated portion was purple in colour and œdematous and was defined by a greyish line from the unsnared portion. Sutures passed through the outer coats of the sound gut were employed to fix it to the surrounding ligaments and fascia so as to leave the engaged intestinal area facing the surface and excluded from the peritoneal cavity. The gut was well greased with boric ointment and the wound was left open, lightly packed and bandaged. Recovery was slow but uncomplicated. No perforation of the imperilled gut occurred. The stitches were removed on March 4th. The site of the wound became puckered during cicatrisation as the gut, resuming its duties, became drawn up into the abdomen, though doubtless leaving an adhesion around the femoral ring. The patient was discharged well on March 26th.

WESTERN INFIRMARY, GLASGOW.

NOTES OF SOME SURGICAL CASES.

(Under the care of Dr. J. CRAWFORD RENTON.)

FOR the notes of the cases we are indebted to Dr. G. Rutherford Jeffrey.

CASE 1. *Rupture of the kidney; nephrectomy.*—The patient, a man, was admitted to the Western Infirmary, Glasgow, having fallen down the hold of a ship and sustained a severe injury in the right lumbar region. The pain was intense over the right kidney and his pulse was feeble. In a few hours he had rallied from the shock and passed a considerable quantity of bloody urine. The blood gradually disappeared and the temperature and pulse continued normal until the morning of the tenth day, when he was seized with sudden hæmorrhage from the bladder without apparent cause and profound collapse. Dr. Jeffrey saw him at once and injected saline solution into both axillæ and at 9.15 A.M., shortly before which time the hæmorrhage had taken place, the kidney was exposed and removed. It was almost split in two and lacerated and the amount of hæmorrhage round about it was considerable. Its pedicle was tied with silk and it was grasped in addition with a curved metal clamp, this being removed in four days. He progressed favourably until the eighth day, when his temperature rose to 104° F. and it was quite evident that there were still some clots in the bladder, as shown by the fact that he was passing a small amount of blood in the urine. In these circumstances suprapubic cystotomy was performed and the bladder was washed out. He progressed favourably and is now quite well and is passing 46 ounces of urine daily.

CASE 2. *Nephrectomy for calculous pyelitis.*—Dr. R. Jardine sent a married woman, from whose left kidney a stone was removed by Dr. Renton three years ago, from which operation she completely recovered, a year afterwards had again a small calculus removed, and as she still continued to suffer from the chronic pyelitic condition which is induced by calculi, at her earnest request her kidney was removed; it contained several other calculi. She progressed favourably and is now quite well.

CASE 3. *Nephro-lithotomy.*—The patient, a male, was admitted into the Western Infirmary, Glasgow, with a history of left renal colic which had occurred on several occasions during the last three years. He had been under the care of Dr. R. Spence of Burntisland and latterly was seen by Dr. W. F. Somerville who sent him to the infirmary on account of urgent pain. He had never passed blood in his urine. A Roentgen ray photograph showed the distinct outline of a calculus in the substance of the kidney. Nephrotomy was therefore performed and the calculus was removed. Only a tiny portion of it protruded into the pelvis of the kidney and the rest had to be enucleated out of its substance.

CASE 4. *Osteotomy for faulty ankylosis.*—A boy, aged 15 years, was sent by Dr. A. N. Montgomery with his knee-joint ankylosed at a right angle. This had existed for several years. A wedge of bone was removed from the knee and the limb was straightened. Union in a straight position was complete and the patient now walks about with an O'Connor extension boot, requiring neither crutch nor stick to assist him, although his right leg is six inches shorter than the other.

CASE 5. *Three operations for intestinal obstruction in the same patient.*—The patient, a male, was operated on in November, 1901, for suppurative appendicitis and a month afterwards for obstruction of the bowels due to a band adherent to the cæcum and encircling a portion of the ileum. Studded over the peritoneum were a large number of tuberculous nodules. He recovered and went home. In October, 1902, Dr. T. McG. Fletcher telephoned that he was again suffering from obstruction and on opening his abdomen a coil of bowel tightly constricted was found; the adhesions were divided and from this he recovered. The tubercle had disappeared. A fortnight after he was again seized with symptoms of obstruction due to a portion of bowel being constricted and gangrenous; this was removed and he left the infirmary quite well, having been operated on

three times for obstruction of the bowels, a very uncommon experience.

CASE 6. *Burst appendix and intestinal obstruction.*—A girl, aged 12 years, was sent by Dr. W. Duff of Wishaw to have her appendix removed. The night after she arrived she was seized with symptoms of rupture of the appendix which was at once removed. Ten days afterwards she had an attack of acute obstruction due to a portion of bowel being constricted by a band; this was divided and she recovered. She had previously had three attacks of appendicitis.

CASE 7. *Paralysis of the face; operation; recovery.*—A girl, aged 14 years, was sent by Dr. A. McLelland of Alexandria, Dumbartonshire, with a history of discharge from the ear for three and a half years and of paralysis of one side of the face for three years, tenderness over the mastoid region, and with an increased pulse-rate and temperature. The patient was somewhat drowsy. The mastoid antrum was opened and pus was evacuated. When the acute symptoms subsided the mastoid and tympanum were converted into one cavity, according to the method recommended by Mr. C. A. Ballance, and when covered by granulation tissue skin grafts were applied to effect complete healing and cessation of discharge. A month after the operation the paralysis had completely disappeared and the patient was using her muscles the same as formerly.

Remarks by Dr. RENTON.—Case 1 is of interest as illustrating the fact that a badly ruptured kidney may improve temporarily and then have a recurrence of hæmorrhage. When such does happen the only chance for the patient is operation. Case 5 is interesting as showing the complete disappearance of the tuberculous nodules noted at the first operation. Case 6 and several others seem to illustrate the importance of operating after one attack in suitable cases, as every recurrence means additional adhesions being formed and greater danger of obstruction taking place. Case 7 is a striking illustration of how quickly muscles which have been paralysed for three years recover. No electricity was employed to effect this, so that the benefit must be entirely ascribed to the facial nerve being relieved from inflammatory pressure caused by the chronic inflammation in the tympanum.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Multiple Aneurysms of the Splenic Artery associated with Calcification of the Portal Vein.—Primary Sarcoma of the Heart.—Acute Leukæmia with a Scheme of Classification of Leukæmias and Pseudo-leukæmias.—A New Method of Blood counting.—Cirrhosis of the Liver in an Infant.—Plexiform Neuroma of the Orbit.

A MEETING of this society was held on May 19th, Mr. R. J. GODLEE, Vice-President, being in the chair.

Dr. R. S. TREVOR showed a specimen of Multiple Aneurysms of the Splenic Artery associated with Calcification and Dilatation of the Portal, Splenic, and Mesenteric Veins. The specimen was found post mortem in the body of a man, aged 53 years, who died from loss of blood consequent upon ulceration of the bowel. The man had been admitted into St. George's Hospital for the radical cure of an old hydrocele and no disease was suspected until the operation was performed, when a great tendency to hæmorrhage was noticed. On the following day much enlargement of the spleen was detected and the edge of the liver was felt below the costal margin. At the necropsy, in addition to the condition of the splenic vessels, a very large spleen and a cirrhotic liver were found together with signs of old syphilis. After discussing the relationship of chronic adhesive pylephlebitis to cirrhosis of the liver, Dr. Trevor stated that the vascular disease and the cirrhosis might be explained as the indirect result of a syphilitic toxin. At the same time it was thought that in spite of the absence of a blood examination there was much to be said in favour of the case having been one of Banti's disease implanted on a syphilitic soil. The tendency to hæmorrhage, the large spleen which weighed more than the liver, and the wide meshed cirrhosis formed by narrow bands of fibrous tissue, as well as the histological appearances of the spleen and the chronic endophlebitis of the splenic and portal veins, all agreed with Banti's description. The aneurysms on the splenic artery were the outcome of a syphilitic degeneration affecting the vessel in its least supported area.

Dr. J. H. DRYSDALE read an account of a case of a woman, aged 43 years, who died from Sarcoma of the Heart. She had had an attack of rheumatism 15 years previously and since her last confinement, about 14 days before admission to hospital, her general condition had become bad. When admitted she was collapsed and breathing was difficult. The heart sounds were irregular and feeble but no murmur was detected. She died three days after admission. At the necropsy the two layers of the pericardium were everywhere adherent but could be easily separated. At the root of the aorta there was a distinct mass of whitish new growth. The parietal pericardial layer was everywhere infiltrated and in places it was nearly a quarter of an inch thick. The muscular walls of all four chambers were infiltrated with new growth. The aorta and pulmonary arteries were surrounded by new growth. Microscopical examination showed the growth to be a sarcoma. In the section of the pericardium the growth had an alveolar structure but this was due to the nature of the tissue infiltrated as the appearance was quite absent in the growth which occurred in the glands and the lung. Dr. Drysdale considered it impossible to be certain where the growth originated, whether in the heart or the pericardium, but the mass in the wall of the right ventricle and ventricular septum was the largest and probably the primary growth.—Dr. H. M. FLETCHER asked if any reference to specimens of a similar nature had been found. He considered that the specimen was one of extreme rarity. He thought that the growth probably arose from the visceral pericardium and the structure of the growth resembled an endothelioma rather than a sarcoma.—Dr. DRYSDALE replied that he did not consider that the growth resembled in structure that seen in endothelioma and he was of opinion that it was a primary sarcoma originating in the walls of the heart.

Dr. F. PARKES WEBER read a paper on a case of Acute Leukæmia and on the Classification of Leukæmias and Pseudo-leukæmias. A very anæmic man, aged 49 years, with a purpuric eruption, swollen gums and tonsils, and enlargement of the spleen, liver, and all the lymphatic glands, was admitted into hospital in a semi-delirious condition with slight fever. He died on the following day, about two months from the commencement of his illness. The blood in the heart after death had a peculiar brownish-pink appearance as if mixed with milk and showed an enormous proportion of white cells of which 92·7 per cent. were large or small lymphocytes. The bone marrow in the shafts of the long bones had a creamy brownish-red colour. Microscopical examination of the bone marrow, spleen, lymphatic glands, liver, and of a whitish patch in one kidney showed that all these tissues were permeated with colourless cells, most of them of the lymphocyte class but many of them containing granules (more or less eosinophile) and apparently belonging to the myelocyte class. Dr. Parkes Weber preferred the hyperplasia-like tumour-formation theory of leukæmias. He regarded "acute leukæmia" as a more primitive or less differentiated type of disease than the more chronic forms of lymphatic leukæmia, but doubtless there was no hard-and-fast line to be drawn between them. Microbic infection was often a complication. Typical "spleno-medullary leukæmia" was probably the "most highly differentiated" form of leukæmia. Mere "mechanical" theories (cells overflowing or being squeezed out into the blood stream) were insufficient to account for the differences between leukæmias and pseudo-leukæmias.

Dr. W. M. STRONG and Dr. C. G. SELIGMANN communicated a note on a New Method of Counting the Corpuscles of the Blood. They stated that by the following method they had been able to obtain permanent preparations from which the number of red and white cells could be counted at any period subsequent to the time at which the blood was taken, while the use of any form of counting chamber was done away with. Five cubic millimetres of blood were diluted a hundred-fold with a fixing solution containing methyl violet. For the white cell count five cubic millimetres of this mixture were blown on to a slide from a pipette graduated to deliver this quantity. The drop was allowed to dry and was mounted in Canada balsam in the usual way. When such slides were examined with a $\frac{1}{4}$-inch objective the white cells were seen to be stained a conspicuous blue among the unstained red corpuscles. The former were counted by going

over the whole of the dried-up drop with the aid of a mechanical stage. Then knowing the dilution of the blood the number of white cells per cubic millimetre could be readily calculated. For the red cell count a further dilution of the first hundred-fold dilution was made into a solution containing eosin. Five cubic millimetres of this were placed on a slide, dried, and mounted in Canada balsam. From the total number of red cells present in the film formed by the dried-up drop the total number of red cells per cubic millimetre was calculated. Dr. Strong and Dr. Seligmann stated that as the outcome of considerable experience in the clinical laboratory of St. Thomas's Hospital, where the method had for some time been in daily use, the results obtained by this method did not differ appreciably from, nor take longer in obtaining than, those given by counting with a Thoma Zeiss slide.

Mr. L. S. DUDGEON read an account of a case of Enlargement of the Liver in a child, aged nine months, who died after four days' illness from broncho-pneumonia. The temperature was subnormal (from 84° to 94° F.) during the illness. There were well-marked evidence of rickets and enlargement of the liver but no jaundice. The kidneys were normal. No other abnormal changes were manifest. The liver was very firm, yellow-coloured, with white patches through its substance. Large areas of fibrous tissue having a unilobular distribution were present in the bile-ducts in large numbers. Dr. H. D. Rolleston considered the specimen to be one of congenital cystic disease of the liver.—Dr. H. BATTY SHAW quoted the case of a child who was subject to periodic rises of temperature and was also anæmic. One week before death the child developed ascites and œdema of the legs. At the necropsy the liver did not appear to be abnormal but on microscopical examination the specimen exhibited the same appearances as those shown by the specimen exhibited by Mr. Dudgeon.—Dr. W. S. LAZARUS-BARLOW said that he had seen a similar specimen and believed it to be congenital cystic disease of the liver; the absence of congenital cystic disease of the kidneys did not negative the fact that the specimen was one of congenital cystic disease. He suggested that congenital cystic disease of the liver was a special form of adenoma of the liver.—Dr. PARKES WEBER thought that it was generally recognised that congenital cystic disease was a special form of adenoma.

Mr. J. HERBERT PARSONS and Dr. W. C. ROCKLIFFE reported a case of Plexiform Neuroma (Elephantiasis Neuromatodes) of the Orbit. The child, aged two years, was shown at a meeting of the Ophthalmological Society in 1899 as a case of pulsating exophthalmos. The proptosis increased gradually without much affecting the child's general health, but finally interference became necessary and Dr. Rockliffe exenterated the orbit in January, 1903, after tying the carotid artery. The child died very shortly after the operation. At the post-mortem examination it was found that the roof of the orbit had been absorbed and that the growth had become intracranial, leading to great distortion of the bony and soft parts. On microscopical examination it was found to consist of convoluted hypertrophied nerves imbedded in dense fibrous tissue. These filled the orbit, extending backwards into the skull and forwards into the posterior part of the upper lid, leading to ectropion. Cases of elephantiasis neuromatodes involving the upper lid and temporal region formed a large proportion of cases of the disease but affection of the orbit was rare and this was the most extensive case on record.

DERMATOLOGICAL SOCIETY OF LONDON.—A meeting of this society was held on May 18th, Mr. Malcolm A. Morris being in the chair.—Dr. E. G. Graham Little showed: 1. A case of possible Pemphigus Foliaceus. The patient was a young woman who had been admitted into St. Mary's Hospital in August, 1902, for a generalised red eruption on the skin and mucous membranes. At this time there was no initial lesion but the whole surface was exuding serum. After a few days the skin began to dry up and desquamated very freely. She became very melancholic and had delusions for a time, but finally became quite convalescent though her return to health was interrupted by an attack of boils and a suppurative tonsillitis. Soon after this another attack of the exfoliative skin eruption occurred, but on the subsidence of this she was well enough to be discharged. She attended the out-patient department from this time and occasionally exhibited some small bullæ on the chest, while there was a constant exudation from the axillæ, though true bullæ were never found on them. In April last she was admitted on account of a new attack of the erythematous eruption and was then found to be in a very bad condition. Exfoliation again occurred soon after admission and when brought to the society she showed an extensive peeling of the hands and a little on the face, arms, and legs, which were of a much darker colour than normal. Most of the skin was then healthy and the patient's condition, although very bad, did not seem to be in direct proportion to the severity of the skin lesions. Many of the members considered the case to be more probably erythema scarlatiniforme recidivans. 2. A man suffering from Simultaneous Eruptions of Psoriasis with a Follicular and Ecthymatous Syphilide. 3. A child with Lupus of the Nose and Lichen Scrofulosorum of the Body.—Dr. D. B. Lees (introduced) showed a case of Asphyxia Reticularis Multiplex.—Dr. W. J. Freeman showed a girl suffering from a peculiar Rash on the Ulnar Surfaces of the Forearms and on the Inner Sides of the Thighs. The eruption, which was slowly extending, consisted of large retiform patches made up of slightly infiltrated and scaly papules not unlike those of lichen planus, but differing in their smaller degree of prominence and in their mode of onset. The case had been shown to the society before under the diagnosis of parakeratosis variegata and this diagnosis was accepted by all the members.—Dr. J. J. Pringle showed a man with Peculiar Ulcerating Infiltrations on the Face. He was a countryman from Wales and the disease had begun on the right ear in September, 1901. The earlier lesions had been destroyed with caustics but new ones had appeared and he now showed four such growths, on the right cheek and in the centre and on both sides of the chin respectively. The growths appeared to be of a granulomatous nature and on careful examination could be seen to be studded with minute pustules. Dr. Pringle said that he had not yet had the patient under observation long enough to carry out any microscopic examination, but that he considered it not unlikely that the disease might turn out to be a case of blastomycosis.—Dr. E. Stainer showed a man suffering from Mycosis Fungoides, who had been brought to the society before, to show the result of x-ray treatment. The exposures and the quality of the tubes used had varied in different cases and some burning had taken place but it was all over at the time of exhibition. It was satisfactory to note that in every instance the exposures had been followed by complete disappearance of the tumours, so that for the time, at any rate, the man apparently was free from the disease.—Dr. J. Galloway showed: 1. A patient with a Marginate Erythematous Eruption covering the trunk and limbs and having a fine vesicular edge, while the centre, where resolution had taken place, was marked by deep pigmentation. The patient had been seen previously with an eruption indistinguishable from an ordinary pemphigus and partly on this account and partly from the course of the eruption he made the diagnosis of dermatitis herpetiformis. 2. A case of Exuberant Papillomatous Syphilide.—Dr. J. H. Stowers showed: 1. A woman with Paget's Disease of the Nipple whom he had brought to the society before on account of the long duration (15 years) without the complication of malignant disease of the breast. Carcinomatous nodules had now within the last 12 months developed in the breast and the axillary glands had become infected. 2. A boy, aged 15 years, with well-marked Herpes Iris from which he had suffered several times a year for nine years.—Dr. J. H. Sequeira showed a girl who had a deeply seated Linear Eruption running round and just beneath the horizontal ramus of the right side of the jaw. The history pointed to its resulting from trauma at nine years of age from which it slowly spread, but there was reason to doubt its being lupus. The alternative diagnosis offered was a nævoid growth.—Dr. H. Radcliffe Crocker showed a female patient suffering from Mild Pityriasis Rubra Pilaris, together with a drawing showing her previous condition.—Dr. A. Whitfield showed a man suffering from Multiple Tuberculous Affections of the Skin and Eyes. The patient had had a sharp febrile attack in August, 1902, and shortly after had noticed two patches on his face, on the upper lip and chin respectively. Soon after he had trouble with his eyes and this was found to be tuberculous iritis. When exhibited he showed two patches of lupus on the upper and lower lip and very numerous nodules of erythema induratum on the fronts and backs of both legs. The face was being treated by "the light" and the legs by ointment and bandaging. The eyes were reported to

have almost returned to the normal and the other lesions were slowly improving.

OTOLOGICAL SOCIETY OF THE UNITED KINGDOM.—A meeting of this society was held on May 2nd in the Medical Institution, Liverpool. Mr. C. A. Ballance, vice-president, took the chair for the first half of the meeting and then vacated it in favour of Dr. H. E. Jones.—Professor Andrew M. Paterson described the Development and Morphology of the Temporal Bone together with the Mode of Evolution of the Ear. First there was an invagination of the surface epiblast connected with the brain and communicating with the surface (elasmobranchs) Then there was a complete severance of connexion with the surface (bony fishes); then there was the formation of tympanic cavity, membrana tympani, stapes, and columella (reptiles and birds); then there was the addition of branchial elements, malleus and incus, external meatus, and pinna (mammals). The complexity and interest of this evolution were increased by the occurrence of the mastoid antrum, the mastoid process, and the cells. The spiral cochlea of mammals presented an obscure and interesting question. The branchial apparatus took a very secondary share in the formation of the ear and this only in mammals.—Dr. Herbert Tilley cited a case in which a temporal bone seemed to have no mastoid antrum.—Dr. Alfred W. Campbell read a paper on the Cortical Centre of the Auditory Nerve. He stated that in a suitably stained section taken from the middle of the temporal lobe of the brain three definite types of cortical structure might be observed and by careful study of these in successive series it was possible to define with absolute exactitude two definite areas—namely (1) the transverse temporal gyri of Heschl and (2) the posterior three-fifths of the superior temporal convolution. From anatomical, embryological, experimental, and clinico-pathological data he believed that the first area represented the arrival platform for the primary reception of auditory stimuli, while the second represented that part of the cortex which interpreted and elaborated these stimuli. Histological, developmental, and clinico-pathological facts were adduced in favour of these areas having the functions assigned to them. The fact that a lesion in the left hemisphere did not produce complete "word-deafness" seemed to show that the right hemisphere shared the function but to a less degree. Dr. Campbell's histological researches showed no differences between the auditory areas in the two hemispheres and hence he could say nothing about the exact localisation of a "word-hearing" centre.—Dr. Jones read a paper in which he pointed out various relationships of the facial nerve which would enable a surgeon to avoid injuring this nerve during an operation and this without having recourse to any of the numerous measurements which had been laid down from time to time and which were of little value when once an operation had been commenced and landmarks were thereby destroyed.—Mr. A. H. Cheatle read a paper on Quinine Deafness and its Prevention. He said that anæmia was probably the pathological cause of the deafness produced by overdoses of quinine. Once established the deafness was permanent and without remedy; hence the treatment must be preventive. Medical men and others, especially in malarial regions, should be warned of the evil effect which large doses of quinine might have upon the hearing. When quinine was given it should be guarded by full doses of hydrobromic acid.—Dr. Thomas Barr said that he thought that the effect of quinine was especially marked in people whose hearing was already deficient.—Dr. William Milligan said that he had found nitrites of use in the treatment of quinine deafness probably on account of their relieving the anæmia.—Dr. J. Dundas Grant said that he believed that the evil effects of quinine were due to congestion.—Mr. C. G. Lee showed a case of Extradural Abscess following Acute Otitis Media. The radical operation was done with complete success and one drachm of pus was evacuated from an extradural abscess in the middle cerebral fossa. Convalescence was retarded by an attack of erysipelas but the patient made a complete recovery.—Dr. Milligan showed a case in which eight days after radical operation had been performed for the cure of chronic suppurative otorrhea skin grafting was carried out, but no packing had been used and yet a perfect result had been produced. He also showed a second case in which the antro-tympanic cavity had been packed for five weeks after the complete operation. An equally successful result had been obtained.—Other cases and a variety of specimens were shown by Dr. William Permewan, Mr. E. M. Stockdale, Dr. Philip Nelson, and Dr. Jones.

HARVEIAN SOCIETY OF LONDON.—A meeting of this society was held on May 7th, Dr. W. Winslow Hall, the President, being in the chair.—Mr. T. Crisp English read a paper on Some Points in the Diagnosis of Acute Abdominal Cases. Attention was drawn to a stage occurring shortly after the onset and marked by the diminution or cessation of all acute symptoms. If, as frequently happened, the patient was first seen during this quiescent period a serious view might not be taken of the case and fatal delay might follow. The effect of stimulants in producing temporary improvement in the patient's condition and in masking the symptoms was pointed out, the action of morphia in this respect being universally known. Large doses of brandy and strychnine intensified the quiescence of symptoms after recovery from the initial shock. Quickness of the pulse, associated with a falling or subnormal temperature, was a symptom of special importance. Diminution or absence of liver dulness, as evidence of free gas in the peritoneum, was of most significance when occurring in the mid-axillary line, or when found shortly after the onset of symptoms in a contracted and board like abdomen. The various conditions giving rise to this sign were discussed. Leucocytosis in the diagnosis of acute peritoneal lesions was of theoretical rather than of practical value and in many cases might be positively misleading. Perforated gastric ulcer or appendicitis was sometimes closely simulated by certain acute symptoms which appeared shortly before the onset of the menstrual period.—Mr. Edmund Owen said that the custom of admitting cases of intestinal obstruction into the medical wards of hospitals as a matter of course was now happily dying out and physicians were becoming more ready to call in surgical aid. All hernial orifices ought to be examined in cases of abdominal obstruction.—Dr. Sidney P. Phillips mentioned several conditions which simulated intra-abdominal disease.—Mr. P. L. Daniel read a paper on Gastro-enteritis of Obscure Origin simulating, and surgically treated as, Peritonitis. He said that enteritis with or without gastritis might in adults produce such intense collapse, with abdominal symptoms but without diarrhœa, as to suggest peritonitis and to cause operations to be performed for the relief of supposed perforation. He read notes of three cases, on two of which laparotomy was performed, while the third patient died 24 hours after the onset of the symptoms; he also read the post-mortem record of the two fatal cases. The lesions in these patients were those of acute gastro-enteritis, the origin of the process in one case seeming to be a septic state of the gums. He thought that the condition was due not to the bacillus coli communis nor to the bacillus enteritidis but to micrococci introduced from above—namely, from the mouth, nose, middle ear, or œsophagus. The misleading feature in these cases was undoubtedly the absence of diarrhœa. The diagnosis was rendered possible by the history of chronic gastric trouble and by the following facts: (1) the presence of some focus of suppuration in the upper alimentary or respiratory tract; (2) the presence of distressing thirst; (3) the great amount of mucus in the vomit and the not infrequent presence of blood; (4) the presence of marked hyperæsthesia in the epigastrium and about the umbilicus without proportionate pain on deep palpation; (5) the absence of muscular rigidity in the abdominal wall; (6) the absence of the characteristic facies and attitude of peritonism; and (7) the fact that the intestinal obstruction which was simulated was not absolute. The treatment suggested was: (1) the removal of any suppurating and septic foci; (2) the administration of large quantities of bland fluid such as egg albumin or barley water, but not milk; and (3) the subcutaneous injection of two pints of 2 per cent. glucose solution if the collapse did not pass off with the usual remedies.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION.—A general meeting of this society was held on May 8th, Dr. V. H. Wyatt Wingrave, the President, being in the chair.—Mr. W. J. Chichele Nourse showed a case of old-standing Lupus of the Larynx which had required tracheotomy in an elderly woman.—Dr. W. Jobson Horne inquired if in this patient there were any evidences of tuberculous disease in the lungs or elsewhere and Mr. Nourse replied in the negative.—Mr. Nourse also showed a case of Tertiary Syphilis of the Larynx in a man,

aged 51 years. Treatment on the usual lines had resulted in a very satisfactory recovery.—The President congratulated Mr. Nourse on the quick response to treatment in this case.—Mr. E D. Vinrace remarked on the very complete recovery obtained.—The President showed a case of Lupus of the Nose, Palate, and Larynx in a girl.—Dr. W. H. Kelson showed a case of Laryngeal Fistula.—Mr. Vinrace remarked that in this case the arytænoid eminences when viewed directly through the fistula were really larger than they appeared to be in the mirror.—Mr. Nourse showed a case of New Growth on the Nose externally presenting an unusual structure.—The President (who exhibited a microscopical specimen of the growth) regarded this growth as extremely rare pathologically It might be described as a "papillary adenoma," innocent in its nature, and originating probably in the duct of a sweat gland or an aberrant "rest."—The President showed: (1) specimens illustrating the Histology of the Accessory Sinuses; and (2) a specimen of Ceruminous Gland of the External Auditory Meatus.—Dr. Horne showed macroscopical and microscopical preparations illustrating Endotheliomata of the Upper Air Passages.—Dr. J. Dundas Grant inquired of Dr. Horne the clinical appearances of one of the growths shown which had affected the larynx and its duration.—Dr. Horne, in reply, stated that this particular growth had existed for over two years and that in appearance it was a fungating, breaking-down growth like a malignant tumour.—Dr. Kelson asked for a definition of the recently much-used word "endothelioma" and inquired as to the behaviour of such a growth.—Dr. Horne regarded the endothelioma as of local malignancy; it would recur locally if removed.—Dr. L. H. Pegler inquired whether formalin had been used in the preparation of the specimens shown and Dr. Horne replied in the affirmative.—The President remarked about these endotheliomata that some were of rapid growth while others increased but slowly. They were like malignant tumours certainly and were not papillomatous in nature as they grew down deeply into the tissues.—Dr. P. H. Abercrombie showed (for Dr. W. G. Holloway) a case of Hypertrophy of the Lingual Tonsil in a woman, aged 28 years. It was proposed to remove the swollen part with the curved tonsillotome.—Mr. Vinrace and Dr. Horne were against operation in this case as likely to be followed by hæmorrhage.—Dr. Kelson suggested the possibility of a foreign body as a cause for the swelling and redness of the lingual tonsil.—The President and Mr. Nourse joined in the discussion.—Mr. Nourse exhibited (1) a new form of Infundibular Probe and Cannula for the Frontal Sinus; and (2) a Probe and Cannula for the Sphenoidal Sinus.—Mr. Nourse read the notes of the sequel of a case of Gumma of the Larynx shown about a year ago. The patient had died from thoracic aneurysm.—The President described a slight Modification of Moure's Operation applicable to children. The method consisted in the placing of an Adam's clamp in the nostrils after the septal incisions had been made and the deviation had been rectified. The clamp acted as a splint and tended to arrest bleeding.—Dr. Pegler having spoken, the President replied.

GLASGOW NORTHERN MEDICAL SOCIETY.—This society held its usual monthly meeting on April 7th in the Ophthalmic Institution, Glasgow, Dr. J. S. Muir, the President, being in the chair.—Dr. A. Maitland Ramsay, with the assistance of his staff, gave a series of demonstrations with special reference to Diseased and Injured Conditions of the Eye. As there were several patients present by arrangement these were shown first and their conditions were explained. The first class of cases referred to an operation for ptosis. The operation which had been performed was a modification of that by Mules. The advantage of it was that if it were not successful it could be easily done again and it left very little scar, if any. The upper lid was suspended on a loop of wire which remained permanently in the tissues. The next class of cases calling for attention consisted of three patients for whom paraffin stumps had been supplied after enucleation. The great difficulty with the artificial eye was the sunken, flat, and dead-like appearance of it. The operation described went a good way to overcome that drawback. When liquid paraffin was injected into the capsule of Tenon the artificial globe in front could move about and it was very difficult to detect that it was artificial. Another class of cases of considerable psychological interest was demonstrated in which sight had been restored after many years of more or less total blindness. In one case a dark dislocated lens had been found blocking up the pupil and was removed, after which the patient had good vision. Several preparations, including cultures and microscope slides, were shown demonstrating the bacteriology of the conjunctiva and arranged by Dr. J. C. McClure, bacteriologist to the institution.—The electric room was then inspected where Dr. John Gilchrist explained the various apparatus, including the x-ray appliances.—Dr. Ramsay afterwards delivered a lecture on Iritis in the class-room. The clinical features were illustrated by hand-painted coloured slides, while the pathological aspect was clearly demonstrated by means of microscopic specimens thrown on the screen by the projection microscope. It was thus possible to have two pictures shown at once.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on May 7th, Dr. J. Gordon, the President, being in the chair.—The following clinical cases were exhibited:—Dr. J. F. Christie: (1) Two cases (brother and sister) of Ichthyosis; (2) a case of Urticaria Papulosa going on to Prurigo; and (3) Photograph of a peculiar Syphilide.—Dr. J. Marnoch: (1) A patient with Arrested Development of the Mandible; (2) Radical Cure of Inguinal Hernia in a man, aged 73 years; (3) a patient operated on 18 months ago for Chronic Ulcer of the Stomach; (4) a case of Posterior Gastro-enterostomy for Cicatrised Ulcer of the Stomach; and (5) a case of Intra- and Extra-Peritoneal Rupture of the Bladder successfully operated on.—Dr. J. Scott Riddell: (1) A case of Abdominal Tumour, probably lipoma of the omentum; (2) a patient after Removal of Tuberculous Glands from the Mesentery; (3) a patient in whom Burrell's Operation for Recurrent Dislocation of the Shoulder had been performed a year before; (4) a case of Coxa Vara with Skiagram; and (5) a case of Congenital Dislocation of the Hip treated by the method of Lorenz.—Dr. G. Rose: (1) A case of Resection of the Knee-joint; and (2) a case of Acute Diaphysitis of the Femur.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The seventh meeting of the forty-seventh session of this society was held on May 1st, Dr. George Herschell, the President, being in the chair.—In his address from the chair on the subject of the Diagnosis of Cancer of the Stomach in the Early Stage the President, after enumerating the symptoms met with in the early stage of cancer of the stomach, pointed out that none of these were distinctive, although persistent anorexia was a sign which was very often met with. In his opinion the most valuable signs were to be obtained by the examination of tiny fragments of mucous membrane of the stomach procured by Hemmeter's method of curettage of the stomach by means of a rubber stomach tube with unbevelled eyes. The conditions which should make the practitioner suspect malignant disease of the stomach, were the proliferation of epithelial cells through the membrana propria and between the glands, fission of the gland tubules, the atypical shape of the glands, and the presence of cells the nuclei of which were undergoing atypical mitosis.

PLAISTOW AND CANSING TOWN MEDICAL SOCIETY.—A meeting of this society was held on April 29th.—Dr. J. Parker showed a Gumma of the Heart.—Dr. W. M. D. Gallie showed a Liver with Multiple Abscesses.—Mr. P. Rose showed a Thymus Gland from an infant; it weighed 46 grammes.—Dr. E. Hay stated that as a result of a communication to the Children's Country Holiday Fund that charity had decided to hand a small honorarium to the medical men who undertook the duties of examining the children.—Mr. L. S. Dudgeon, who was present by special invitation, then gave an address on Tuberculosis of the Serous Membranes, dwelling particularly on the conditions of tuberculous pleurisy, tuberculous meningitis, and tuberculous peritonitis.—After a little discussion the meeting terminated with a vote of thanks to Mr. Dudgeon.

COLCHESTER MEDICAL SOCIETY.—The spring meeting of this society was held on May 12th, Dr George Brown being in the chair.—The following resolution was carried regarding the late President, Mr. R. F. Symmons.

This meeting desires to express its heartfelt sorrow at the loss which the society has sustained by the death of Mr. R. F. Symmons who was a member for 42 years. His high sense of honour, his unvarying kindness, and his earnest desire to promote goodwill among his professional brethren were qualities much appreciated by this society.

Dr. W. W. Sinclair of Ipswich showed specimens of Tumours

of the Eye.—Dr. Beaumont Percival read a paper on Curettement, its uses.—Dr. B. H. Nicholson showed (1) an Osteoma of the Upper Jaw (the patient was shown); (2) a case of Coxa Vara; (3) a specimen of Gangrenous Appendicitis; and (4) Acute Necrosis of the Diaphysis of the Ulna

Reviews and Notices of Books.

The Blood: How to Examine and Diagnose its Diseases. By ALFRED C. COLES, M.D., B.Sc. of Public Health, Edin. Second edition. With six Coloured Plates. London: J. and A. Churchill. 1902. Pp. 286. Price 10*s.* 6*d.*

IN our review of the first edition of this work we explained its object and scope and expressed the favourable opinion which we had formed of it. We may now congratulate the author on the satisfactory reception which his book has met with—a reception which has justified his belief that a small book dealing particularly with the practical methods of, and the clinical deductions to be obtained from, the examination of the blood would prove of service. The importance of the subject is now generally recognised and since the appearance of the first edition much work has been done by many observers with respect to the examination of the blood and the changes in the corpuscular elements in disease. Dr. Coles has taken advantage of such researches and has brought the present edition up to modern requirements by a thorough revision of the work and the addition of much new matter.

The section on Malarial Parasites has received particular attention. Much discussion has taken place concerning the best method suited to the recognition of these organisms. Dr. Coles describes in great detail the technique of a method of examining the blood which he deems best suited to meet the requirements of physicians—viz., a process insuring rapidity and certainty and one which introduces the fewest possible errors. Those practitioners who are likely to be brought into contact with malarial cases will do well to study carefully the pages devoted to this subject, as an examination of the blood is now acknowledged to be of great assistance in doubtful cases.

Dr. Coles also gives directions as regards examining the blood for the embryo filariæ. If permanent preparations are required he advises that a film should be procured which is very thin at one end and moderately thick at the other; this film should be fixed in alcohol and ether and stained with eosin and hæmatoxylin. By this means the internal structure and sheath of the parasite are well shown, and in the thin part of the specimen the nature of the leucocytes can also be ascertained.

Muco-Membranous Entero-Colitis. By MAURICE DE LANGENHAGEN, M.D., Consulting Physician at Plombières, Vosges, France. London: J. and A. Churchill. 1903. Pp. 115. Price 3*s.* 6*d.*

THIS little volume contains a very good description of the disease known as muco-membranous entero-colitis. As the affection has not received the attention which it merits in most medical text-books, Dr. de Langenhagen's remarks will be found very interesting. A clear description is given of the principal symptoms of the disease, of which the three most characteristic are a glairy secretion from the bowels which is more or less formed into pseudo-membranes, the irregularity of the intestinal functions, and abdominal pains of a special character. These phenomena are considered in detail and the reader is presented with a good clinical picture of the malady. Dr. de Langenhagen points out that patients suffering from the disease "never possess what may be called intestinal equilibrium." As a general rule, he says, constipation prevails; in rare cases there exists a true form of diarrhœa which persists throughout the course of the affection. These exceptions, however, do not invalidate the statement that "muco-membranous entero-colitis is an enteritis typified by constipation." Food, however, is often discharged imperfectly digested. Green vegetables such as cabbage and spinach, French beans, green peas, carrots, and those vegetables made into salads are passed almost unchanged in appearance. Fats, too, are hardly ever digested. Upon these indications the treatment is mainly founded. The affection, though prolonged and difficult to control, can always be considerably relieved and sometimes completely cured by therapeutical means chosen with discernment and employed with perseverance. The question of diet is of supreme importance. The problem consists in nourishing the patient in such a way that the stools shall be neither abundant nor irritating. Dr. de Langenhagen's remarks on this part of the subject are very full and lucid and will be found easy to act upon in practice. He naturally lays stress on hydro-therapeutic measures. The regimen which a patient has to follow when placed under proper supervision is of the greatest benefit and excellent results have been obtained.

With regard to the etiology of the disease, Dr. de Langenhagen is of opinion that muco-membranous entero-colitis occurs much more frequently than is generally supposed and he thinks that it should be considered a "constitutional malady." He believes that certain persons are predisposed "to a sort of laxity of the tissues, a sort of weakening of the intestinal parietes," which will very probably lead to intestinal atony and thence to those more characteristic morbid phenomena which constitute the disease. He has also found that most of his patients are of the "neuro-arthritic" diathesis. We can recommend a perusal of this small work to all those who wish for information on the subject with which it is concerned.

Atlas und Grundriss der Krankheiten der Mundhöhle, des Rachens, und der Nase. Von Dr. L. GRÜNWALD in München. Zweite umgearbeitete und erweiterte Auflage. 42 farbige Tafeln und 39 Textabbildungen. (*Atlas and Essentials of Diseases of the Mouth, the Pharynx, and the Nose.* Second edition, completely rewritten and enlarged. 42 coloured plates and 39 illustrations in the text.) Munich: J. F. Lehmann. 1902. Pp. 212. Price 12 marks.

DR. GRÜNWALD intends this book to act as a preparation for the study and digestion of larger and more elaborate scientific works by students and practitioners of general medicine. But, as Dr. Grünwald rightly contends, a general knowledge can alone be obtained by reading; technique and clinical experience can only be attained by work, conscientiously performed, under the direction and supervision of a competent instructor. For this reason the book is not subject to too minute subdivision of its contents. Also but few instruments are depicted, as they can all be seen by reference to instrument makers' catalogues, and in his preface Dr. Grünwald tells his readers the names of the makers of his instruments.

The first 30 coloured plates are representations of pathological conditions, whilst the last 12 are devoted to reproductions of microscopical sections. This proportion appears to us to be injudicious, especially in view of some of the sections chosen for reproduction, several being allotted to the histological appearances of adenoids. The plates illustrating diseased conditions are both well drawn and well coloured, amongst the most interesting being Plate IV., Fig. 2, a very typical example of pyorrhœa alveolaris; Plate VII., Fig. 1, broken-down gumma of the tongue, and Fig. 2, carcinoma of the tongue; Plate VIII., Fig. 3, diphtheria, not by any means a characteristic example; Plate XII., Fig. 1, an extremely good drawing of carcinoma

of the tonsil; Plate XXV., tertiary syphilis of the naso-pharynx; and Plate XXVI., hypertrophies of the posterior extremities of the inferior turbinate body, &c.

Dr. Grünwald devotes but little space to a description of the anatomy and physiology of the parts—only 17 pages; he, however, gives quite sufficient to enable his readers to follow any subsequent remarks which touch upon them. He then considers the question of general pathology and examination of the patient with a brief outline of the more usual intra-nasal operations and their indications and he concludes this part with general rules for the guidance of the operator. All acute inflammatory states are taken in sequence, commencing with simple catarrh, the same method being followed in chronic inflammations and specific conditions; also new growths, paralyses, &c., are shortly and clearly reviewed.

Dr. Grünwald is so well known that it is needless to say more than that the book contains a brief summary of the theories and principles so ably advocated by himself, one of the pioneers of nasal surgery. We have no doubt that to those acquainted with the German language this little book will be found useful and instructive. It has the merit of individuality and is devoid of any element of uncertainty in the advice given as to treatment.

LIBRARY TABLE.

First Aid to the Injured and Sick. By F. J. WARWICK, M.B. Cantab., M.R.C.S. Eng., and A. C. TUNSTALL, M.D., F.R.C.S. Edin. Bristol: John Wright and Co. London: Simpkin. 1903. Pp. 236. Price 2*s.* 6*d.*—This is the third edition of a useful little work, the first edition of which we reviewed in THE LANCET of March 2nd, 1901, p. 638. The favourable impression which we then formed of the practical part of the book has in no way altered, but we still think that there is a little too much anatomy and physiology for lay readers. We are glad to see that the authors have enlarged their directions on the lines which we suggested as to the method of releasing sufferers from "live" electric wires. That the book has reached a third edition shows that it has been found useful and we daresay that a fourth edition will soon be called for.

London University Guide and Correspondence Calendar. 1902—1903. London: University Correspondence College. Pp. xx. + 64. Gratis.—This calendar will be found of value by students of the University of London. It gives the regulations for the examinations to be held during 1903 and 1904, with notes and instructions as to how a student may best prepare himself for his examinations.

The Medical Annual, 1903. Bristol: John Wright and Co. Pp. 824. Price 7*s.* 6*d.*—The present is the twenty-first annual issue of this valuable compendium. Medicine and the allied sciences have so enormously widened their scope of late years that it is impossible for any medical man to keep himself posted in advances in his art without the aid of a judiciously selected *précis* of knowledge such as the Medical Annual affords. The contributors to the volume now before us number 34 and all of them are experts in the matters upon which they respectively write. Besides the more purely professional subjects of medicine, surgery, and the like, information is given upon legal decisions affecting medical men, inebriate homes, convalescent homes, sanatoriums for tuberculosis, and many other matters about which medical practitioners constantly want to know. The compilation will be found most useful.

The Municipal Year-book for 1903.—Edited by ROBERT DONALD. London: Edward Lloyd, Limited. Pp. 690. Price 3*s.* 6*d.*—This is a book which gives a great deal of information about municipal bodies both in the metropolis and the provinces. A *résumé* is given of Acts of Parliament passed during the session of 1902 affecting local government which will be found valuable. We suppose that the publisher is responsible for the irritating way in which advertisements are sandwiched into the body of the book and between the table of contents and the index.

JOURNALS AND MAGAZINES.

The Practitioner.—Malignant Diseases of the Mouth form the subject of a "special" May number of the *Practitioner*. The articles therein contained deal almost exclusively with diseases of the tongue, and a very complete account of epithelioma of the tongue with its natural history and its treatment may be gathered from reading the various contributions of Mr. W. Whitehead, Mr. H. T. Butlin, and other surgeons. The comparatively rare condition of sarcoma of the tongue is dealt with by Mr. A. D. Fripp, C.V.O., whose remarks are based on 29 cases. A prominent feature of most of the articles on carcinomatous growths of the tongue is the urgency with which the writers insist upon the frequency of mistake arising from the fact that epithelioma is often super-imposed upon syphilitic conditions. The great care necessary for early diagnosis and the extreme importance of such diagnosis are well illustrated. The article by Mr. Jonathan Hutchinson, jun., is illustrated by some excellent plates.

Quarterly Medical Journal.—The first of the original articles in the May number of this journal is an elaborate argument in favour of the exogenesis of cancer by Dr. A. T. Brand of Driffield. He uses the word "exogenesis" in the sense of infection from without and with regard to the means by which the pathogenic influences obtain access to the patient's system he says that since the favourite site of epithelial cancer is some part of the mucous membrane the mouth and respiratory passages suggest themselves as very obvious channels. Again, the wearing of long skirts sweeping the ground, together with the open and loose arrangement of their nether garments, suggests another obvious channel of entrance in the case of women, who notoriously suffer from cancer of the generative organs. Mr. G. E. Mould of Sheffield describes What to do in a Case of Recent Insanity, and Dr. E. W. Adams of Sheffield contributes an excellent article on the scientific work and the far-reaching influence of Morgagni.

Edinburgh Medical Journal.—The original communications in the May number open with an article on Public Health Administration in Fife during a period of ten years, by Dr. T. G. Nasmyth, medical officer of health of the county. Dr. John Macpherson, Commissioner in Lunacy for Scotland, discusses Insanity in Relation to Fertility, his inferences being drawn from a study of the vital statistics of Ireland for a long series of years. He considers that the great increase of insanity in Ireland is due primarily to the depletion of the population by emigration and more immediately to the growing disinclination for marriage and to the diminution of the Irish birth-rate, which is now among the lowest in Europe, with perhaps the single exception of France. Dr. G. A. Gibson, the editor, publishes the second of his lectures on the Nervous Affections of the Heart.

Scottish Medical and Surgical Journal.—The original articles in the May number are on Trophic Changes the Result of Nerve Injury, by Dr. Alexander James; on the Diagnosis and Treatment of Iritis, by Dr. A. Maitland Ramsay; on the Method of eliciting the "Coin-percussion Sound" in Pneumothorax, by Dr. H. G. Langwill; and on Premature Separation of the Normally Situated Placenta, by Mr. J. S. Ross. A special article on the History and Statutes of the Royal Infirmary of Edinburgh as existing in, or shortly before, the year 1778 abounds in entertaining paragraphs. The "matron or governess" of that day evidently occupied a

position of authority which would find favour in the eyes of some of the enterprising "lady superintendents" of modern times. The surgeons' clerk had "to open and inspect dead bodies when desired" and "to electrify those patients for whom electricity is ordered." Another rule directed that "the clerks shall not give any list of the patients, with their diseases, to be published in the periodical magazines or other papers as hath sometimes been done without an application made to the managers and their leave obtained."

Mercy and Truth.—In the May number there is an illustrated account of Mr. Cecil Lankester's medical work at Nathia Gali, a hill station at a considerable elevation in the north-west frontier province of India. In 1902 the Government made arrangements by which the duties of civil surgeon here are carried out by the Medical Mission at Peshawar.

Analytical Records
FROM
THE LANCET LABORATORY.

TABLOID HYPODERMIC STRYCHNINE SULPHATE.

(BURROUGHS, WELLCOME, AND CO., SNOW-HILL-BUILDINGS, LONDON, E.C.)

TABLOIDS containing the following amount of strychnine sulphate are now prepared for hypodermic use: $\frac{1}{30}$th grain, $\frac{1}{60}$th grain, $\frac{1}{90}$th grain, $\frac{1}{120}$th grain, and $\frac{1}{180}$th grain. We have carefully assayed the tabloid said to contain $\frac{1}{60}$th grain with the result that we found exactly the quantity of strychnine sulphate stated. These hypodermic tabloids are certainly valuable and especially in cases of emergency.

"VEDA" BREAD AND BISCUITS.

(VEDA FOOD CO., 8, NORTH BRIDGE, EDINBURGH. AGENCY: MESSRS. BONTHRON AND CO., 50 AND 52, GLASSHOUSE-STREET, REGENT STREET, LONDON, W.)

An important dietetic feature of Veda bread is that its carbohydrates are largely in a soluble state. According to our analysis a third part of the total solid constituents is soluble in cold water while two-thirds are soluble in hot water; accordingly, the bread readily yields to the converting action of diastase or the pancreatic ferment. The taste is somewhat "treacly" owing to a slight charring of the malt sugar present. Veda bread is much more digestible than ordinary white bread. The mineral matter amounted to 1·19 per cent., the moisture to 36·46 per cent., and the proteid to 12 per cent. Biscuits made with the same meal showed a similar high degree of solubility. The mineral matter in this case, however, amounted to 2·47 per cent., which showed an alkalinity equal to 1·34 per cent. of sodium carbonate.

NON-NICOTINIC CIGARS.

(KISSLING'S NON-NICOTINIC CIGAR AGENCY, 15, FORE-STREET, LONDON, E.C.)

We have examined several different specimens of these cigars with regard to the quantity of nicotine. We found that the nicotine varied from 0·15 to 0·18 per cent. The amount of nicotine in tobacco is very variable, but even accepting the lowest quantity ever recorded it is evident that a very considerable reduction in the amount of the poisonous alkaloid has been effected in these cigars. We have not had the opportunity of examining these cigars before they were submitted to the eliminating process, but the amount of nicotine in cigar leaf is generally somewhere between 4 and 1 per cent. In spite of this withdrawal of nicotine the cigars are quite satisfactory from the point of view of the smoker. They give a smoke of pleasing aroma, in which no difference can be detected from the smoke produced from a cigar of good quality which has not been treated in the special way indicated. The best specimens, we think, are those described as "Flor Real."

LEMONA.

(LEMONA, LIMITED, 13, BARTLETT'S-BUILDINGS, HOLBORN-CIRCUS, LONDON, E.C.)

According to our examination this toilet preparation would appear to consist simply of pulped lemon fruit. It is a yellow, creamy substance possessing the agreeable and fragrant odour of the lemon. Our analysis gave the following results: moisture, 87·80 per cent.; citric acid, 5·81 per cent.; and mineral matter, 1·13 per cent. The preparation produces a pleasant cooling effect upon the skin. Lemon juice is reputed to be a useful application to an irritable skin and soothing to the face after it has been exposed to the sun or wind. For this purpose this preparation is well suited, and on the whole lemona is a useful, agreeable, and harmless application for the skin.

OLD BRANDY.

(THOMAS PEATLING AND SONS 8 AND 9, OLD MARKET, WISBECH.)

Both taste and the results of analysis are in favour of this spirit being a genuine grape brandy. It has the peculiar merits of matured eau-de-vie of Cognac—soft and mellow to the taste and with pleasing aroma. Analysis gave the following results: extractives, 0·70 per cent.; alcohol, by weight 40·30 per cent., by volume 47·67 per cent., equal to proof spirit 83·54 per cent. The following were the results in regard to secondary products given in grammes per hectolitre of absolute alcohol present: volatile acidity reckoned as acetic acid, 100·80; aldehydes, 12·60; furfural, 1·68; ethers, as ethyl acetate, 138·60; and higher alcohols, 138·60. These results are typical of genuine matured grape spirit.

BADEN-BADEN MINERAL WATER.

(BADEN-BADEN MINERAL SPRINGS CO., TERMINUS CHAMBERS, 6, HOLBORN VIADUCT, LONDON, E.C.)

The chief constituents of this water according to our analysis are chloride of sodium, carbonate of sodium, and magnesium and calcium salts. We could find no appreciable amount of lithium when operating upon half a litre of the water. The water is pleasantly sparkling and has an agreeably soft though somewhat saline taste. It contains 2·743 grammes of salts in solution per litre as follows: sodium chloride, 2·310; sodium carbonate, 0·159; calcium and magnesium carbonates, with sulphate of the former, 0·274. We cannot indorse its claims in regard to containing any important quantity of lithium salts.

MARKING INK.

(GEORGE VICKERS, ANGEL-COURT, 172, STRAND, LONDON, W.C.)

According to our examination the vehicle of this ink is amylic alcohol of which it smells strongly. We have given the ink practical trials and find that it answers admirably. The ink is indelible, does not spread on the fabric, and gives a good clear black stroke.

BARCO FOOD.

(MOSS RIMMINGTON AND CO., PORTHOLME AND WEST RIDING MILLS, SELBY.)

There is nothing strikingly novel about this preparation. According to microscopic examination it is a cereal food modified by dry cooking. The starches are therefore broken up and to some extent altered so that its solubility is higher than that of ordinary wheat flour.

HUNTER BALTIMORE WHISKY.

(W. LANAHAN AND SON, BALTIMORE; A. A. BAKER AND CO., 30, MINCING-LANE, LONDON, E.C.)

IN THE LANCET of Jan. 24th, p. 245, we published an analysis of a sample of Baltimore rye whisky which showed a relatively low alcoholic strength. We understand that this sample was meant for exportation. We have since received samples of the same whisky intended for home trade. Analysis gave the following results: extractives, 0·21 per

cent.; alcohol, by weight 40·80 per cent., by volume 48·21 per cent., equal to proof spirit 84·49 per cent. As will be seen the alcoholic strength of the specimen recently analysed is about that of ordinary malt whisky. The spirit possesses the peculiar flavour and smell of rye spirit. It contains a relatively small amount of secondary products and from this point of view may be regarded as very pure.

MALTICO.

(TAYLOR AND SONS, KINGSTON CROSS, PORTSMOUTH.)

This infants' food is described as being "prepared from the best and purest milk and the extracts of various nutritive malted cereals." According to our analysis it is perfectly free from starch which in the original grain has been converted by the action of diastase chiefly into maltose. Our analysis gave the following results: moisture, 0·90 per cent.; mineral matter, 3·10 per cent.; milk fat, 8·40 per cent.; maltose, 67·81 per cent.; dextrin, 7·79 per cent.; and proteid, 12 per cent. It will be seen that this food contains all the elements necessary for the infant's dietetic requirements. It would be an advantage, however, if the proportion of fat were increased. Made with milk the preparation gives an excellent infant food rich in all classes of reparative material. No less than 90 per cent. of this food is soluble in water and therefore it is readily digestible.

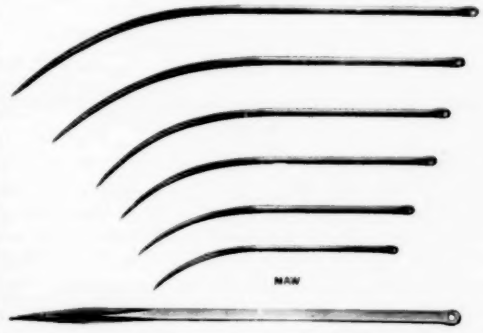
New Inventions.

AN IMPROVED OTOSCOPE.

DR. J. B. BALL, physician to the throat and ear department of the West London Hospital, writes: "A magnified image of the drum membrane often reveals changes not otherwise discernible. Instruments in which a speculum, a reflector, and a magnifying lens are combined in one piece have long been used for inspection of the ear. Mr. Davidson, of 140, Great Portland-street, has constructed at my suggestion an otoscope of this kind. It is small and very portable. The interior of the otoscope and specula, instead of being bright as in the otoscopes at present most in use, is dead black. This brings out by contrast the image of the parts to be examined with striking clearness. It can be used with good daylight, sunlight, or artificial light. It is fitted with three specula of different sizes which can be used separately with the frontal mirror if desired. The interior of the specula is first bronzed and then blacked and they may be sterilised by boiling without the blackened surface being affected. The exterior of the instrument is heavily plated so as not to tarnish."

AN IMPROVED SURGICAL NEEDLE.

IN 1900 Messrs. Maw and Son of 7, Aldersgate-street made to my design a needle specially suited to abdominal surgery. The main features of this needle are three. Firstly, the point, which is triangular or bayonet-shaped, this being, I consider, the best both for penetration and for avoiding the cutting of tissues (and consequent bleeding) which is such a drawback to the Hagedorn point, especially where one is dealing with tissues like the uterine wall. Moreover, the point is an easier one to grasp during withdrawal, either with the forceps or with the hand, than that of the latter needle which invariably either turns on edge or cuts the fingers. The second feature is the eye, which is similar to the round Hagedorn eye and like that pattern is threaded easily. The third and last peculiarity is the haft, which is flattened at right angles to the plane of the curve in a manner similar to that which obtains in the so-called "reversed" Hagedorn needle. The advantage of this flattened haft is the excellent hold that can be got upon the needle with an ordinary Spencer Wells pressure forceps, thus dispensing with various forms of



needle holders, all more or less clumsy and irritating, and simplifying the surgeon's outfit. The needles are made in three different curves and in a number of sizes from very large and strong weapons suitable for the various forms of perineorrhaphy down to the smallest sizes required for intra-peritoneal operations. The results obtained from an extended trial of this type of needle both by myself and others lead me to deem it the most convenient needle for abdominal surgery.

Devonshire-street, W. W. F. VICTOR BONNEY, M.D. Lond.

AN OPHTHALMIC DRESSING-TRAY.

THE accompanying illustration represents a tray for use in irrigation of the eye and has been suggested by Nurse Manchester of Guy's Hospital who has previously designed a useful dressing-tray for colotomy cases. The present tray is so shaped as to fit against the face and when used with the patient in the recumbent position it rests on the pillow and adapts itself closely to the face. It certainly answers the purpose for which it is intended and in addition will be found useful when syringing the ear. The tray is made by Messrs. Down Bros., Limited, 21, St. Thomas's-street, London, S.E.

NATIONAL SANATORIUM FOR CONSUMPTION, BOURNEMOUTH (OPEN-AIR TREATMENT).—The annual general meeting of governors of this charitable institution was held in London on May 14th at the Westminster Palace Hotel. The annual report of the committee for the year 1902 was placed before the governors, with the statement of accounts showing a deficit of £109, which, added to the existing debt of £431, amounts to a total deficiency of £540. The secretary, however, informed the committee that so far there has been some improvement in the receipts this year. The report stated that a special appeal is being made in order to put the institution in a better financial position, pointing out that the benefits of the National Sanatorium are not limited to the patients who enter it, but extend to the public generally, for every case in which the disease of consumption is arrested removes a source of infection to others. Moreover, every patient is taught the laws of hygiene and the means of preventing the spread of the disease to others and the re-infection of themselves. Upon the national character of its work the committee relies for a generous response to its appeal. The report further states that during the year His Majesty the King was graciously pleased to send a donation of £100.

THE LANCET.

LONDON: SATURDAY, MAY 23, 1903.

The Metropolitan Hospital Sunday Fund.

THE meeting of the Council of the Metropolitan Hospital Sunday Fund which was held under the presidency of the Lord Mayor on May 12th, and a report of which will be found in our columns last week, was particularly notable owing to two announcements which were officially made thereat. The one was that the Hospital Sunday Fund collection would be made at St Paul's Cathedral on June 7th, being the date upon which their Majesties the KING and QUEEN would be present to worship and to benefit the London hospitals. The other was that Mr. GEORGE HERRING repeated his offer of giving £10,000 to the Fund, or one-fourth of the whole amount collected, provided that this did not exceed £100,000. The Lord Mayor in his speech pointed out that the whole deficiency of the London hospitals amounted to £250,000 per annum. If, he said, King EDWARD'S Hospital Fund could raise £100,000 per annum, the Metropolitan Hospital Sunday Fund £100,000 per annum, and the Hospital Saturday Fund £50,000 per annum, then no assistance from the rates would be required. He was glad to say that nearly every bank in the City had sent him a donation for the London Hospital and he further adjured the banks and the limited liability companies to contribute to one of the three funds above mentioned. This is a matter upon which not sufficient stress has been laid. When the large businesses were in the hands of personal proprietors contributions were made to charities which are no longer made by the companies which have replaced those proprietors. The boards of directors cannot have personal claims made upon them as the heads of private businesses can, while directors have responsibilities towards shareholders which prevent them from giving way to private feelings of generosity. We hope that directors of limited liability companies in London will recognise the justice of the claim upon the funds which has been urged upon them this year by the Lord Mayor.

Last year the total of the sum received was very nearly £63,000, a larger amount than had ever before been collected. This was a source of credit to everyone concerned, for although there were many circumstances which went to make men and women subscribe—such as its being the year of the coronation of the KING and the year in which peace was declared—yet the country had just passed through a costly and lengthy war with the consequence that trade was depressed and taxation was high. This year has seen the lowering of taxation and so we may well hope that the total collected will reach the sum of £100,000, the sum which we have always had before our eyes as the ideal to which the Fund should annually attain. One thing must be remembered, nearly all other charitable collections are unfortunately limited by religious differences. If it be true that

> "All equal are within the Church's gate"

still more true is it that sickness and death level all. To the Metropolitan Hospital Sunday Fund all can and do contribute. The Christian, the Jew, and the Mussulman, to say nothing of the members of the many other religions or no religions within our great Empire, all can give of their wealth or of their poverty and like Abou ben Adhem each one desires to be simply written "as one who loves his fellow-men." The influence of a hospital is the true communiser of charity and the surgeon or the physician who on one day gives his skill, under GOD, to heal a monarch on the next day gives the same skill to heal the poorest in the land. Here are no politics and no bitterness, therefore everyone from the highest to the lowest should contribute. Doubts have been raised as to the wisdom of making the collection upon two different Sundays. We think that on the whole the step is well advised. "Week-ends" are now having a serious effect upon the attendance in our metropolitan churches. The bicycle, the motor-car, the links, and the river draw away hundreds whose excuse is that they are obliged to obtain fresh air and exercise upon their only free day in the week. The collection of Sunday, June 7th, will remind those who do not go to church or chapel that if they do not attend any place of worship on the following Sunday they can and should at least send a subscription to be added to the subscriptions of those who do attend. Let those who are able to seek the country and the free air on a Sunday remember that the hospitals exist for those whose need for health is as great as, or even greater than, their own. Let them remember that if they fall ill they will be tended and possibly restored to health by the skill of one who without a hospital would scarcely have attained that skill. The benefits of the Hospital Sunday Fund are impartially bestowed; a gift from it is a guarantee of sound finance and of good management. Therefore, anyone who gives will feel not only the pleasure of giving but may rest assured that his gift will be laid out in the best possible manner.

In connexion with Mr. GEORGE HERRING'S great and repeated generosity we should like to see urged upon the racing men of the community the claims of the great London hospitals, so that something like a movement might be inaugurated among them to devote a small percentage of their winnings to the succouring of the necessitous poor. The late Baron HIRSCH'S dedication of a great proportion of his winnings to charity will be remembered, but every devotee of the turf is not a millionaire. Still, every winner can spare something. The idea is not a new one. More than 40 years ago Mr. JOSEPH BOND, a gentleman well known in connexion with racing, made an offer to the stewards of the Jockey Club which, if it had not been rejected, might have initiated a movement of inestimable value to the London hospitals. Mr. BOND repeated his offer in a letter addressed to the Editor and published in THE LANCET of July 5th, 1862, in these words: "My present most earnest appeal (in anticipation of any general measure to be taken by the Jockey Club) is made to the fortunate winners of the Derby and Oaks—viz., that if *they* will kindly consent *this year* to an allocation of 10 per cent. of their winnings" for the

benefit of the London hospitals, "I will with pleasure add a contribution of 1000 guineas; but should such percentage be deemed excessive I shall be happy to give an amount equal to *five* per cent. upon their stakes respectively." It will be seen from this that the idea which actuated Mr. BOND was that by getting the owners of two winners of large stakes in a particular year to tax their gains for the benefit of the hospitals he could bring about a general deduction to be made by the assistance of the Jockey Club from all such winnings in the future, and no doubt from all or from a large portion of the stakes of each year. These stakes Mr. BOND put at £200,000 per annum—an amount which, of course, has long ago been largely exceeded. "My constant endeavour," Mr. BOND wrote, "will be to place the turf as an institution in closer affinity with the sick poor of our needy and unendowed London hospitals." In the years that have passed since Mr. BOND wrote these words the hospitals have grown no less needy, no less unendowed: their needs have increased with the population of the metropolis and their endowments have not kept pace with the demands upon their resources. Mr. BOND'S great idea has not borne fruit in any organised taxation of turf profits but a worthy successor to him has arisen in Mr. HERRING, whose princely generosity of last year is to be repeated in 1903. When in 1862 Mr. BOND found that the winning owners to whom he had appealed had not responded to his challenge, he nevertheless carried out his part of the undertaking, and his gift of £1000 was divided, the greater part being given, largely through the medium of THE LANCET, to seven London hospitals and the remainder devoted to the provision of a drinking fountain in the parish of St. Clement's Danes. Mr. BOND also presented to the hospitals some valuable works of art which were placed either in the convalescent wards or board-rooms, where they will be found at the present time—fitting memorials of his generosity and of his well-intentioned efforts. From the hundreds of thousands of pounds which change hands every year upon the turf we would claim a percentage for the suffering poor in the London hospitals and would welcome an attempt at an organised movement on these lines this year.

Personal Performance of Duties by the Workhouse Medical Officer.

A MEDICAL man commencing practice may be inclined to avail himself of an opportunity of becoming medical officer at the union workhouse. He sees in the appointment the source of a small addition to his income—an addition somewhat attractive, not by the pleasantness of the work to be performed for it, but by reason of the certainty and punctuality in the payment. Probably it will occur to him that if he himself should fail to step into the vacant post some other person will inevitably be installed and that the other person in consequence of the help afforded by the appointment may become a permanent competitor with him for the practice of a district too small to supply the needs of more than one practitioner. Rarely until he has entered upon his duties does the newly elected workhouse medical officer realise the exacting nature of the conditions which will affect him during his tenure of the position. Nor will the contract which he is required to sign make clear to him all the irksome limitations and responsibilities to which he is expected to submit. A search through the General Consolidated Order of 1847 and the notes upon it will, however, reveal the terms of his engagement and enable him briefly to set forth some of the more important of those terms in the form of the paragraphs given below:—

(*a*) Every officer of the union shall perform his duties in person and shall not intrust the same to a deputy except with the special permission of the Commissioners (now the Local Government Board) on the application of the guardians.

(*b*) The medical officer shall be bound to visit and attend personally, as far as may be practicable, the poor persons intrusted to his care and shall be responsible for the attendance upon them.

(*c*) The medical officer cannot expressly delegate to his assistant in his general practice the duties of his office, however well qualified, legally or otherwise, such assistant may be.

(*d*) Though an assistant may visit a patient or aid his principal in the performance of his duties no diminution or subdivision of the duty of personal attendance and personal responsibility on the part of the medical officer will be recognised on that account.

(*e*) The medical officer must immediately after his appointment name to the guardians some legally qualified medical practitioner to whom application for attendance may be made in the case of his absence and the medical officer will be responsible for the skill and diligence of the person named by him. The name and address of every practitioner so named must be forwarded by the clerk to the guardians to each relieving officer and to the overseer of every parish in the district of such medical officer. The guardians have the power to object to the appointment of the practitioner so named if they should not approve of him.

(*f*) The visit or attendance made or given to any pauper by any person employed by the medical officer must be shown in the book prescribed under the General Consolidated Order of 1847. Medical men not being medical officers of the union are not entitled to any fees under the same order for operations performed upon paupers or services rendered except by the will of the guardians.

(*g*) The medical officer must not only attend at the workhouse at the periods fixed by the guardians but also whenever he is sent for by either the master or the matron. He must record every attendance in a book provided and give a return to the guardians at each meeting of the particulars of the attendance. It is the duty of the master to cause every pauper upon admission to be examined by the medical officer; to send for the medical officer when any pauper is taken ill; and to take care that all sick paupers are duly visited by the medical officer.

It may be gathered from the above statements that the task of the workhouse medical officer is no light one; that the mere labour of going to and from the workhouse, apart from the work there to be performed, may be a matter of great moment; that the medical officer's comfort depends to a large extent upon the temperament of the workhouse master who may see serious symptoms in every simple ache of an inmate; and that the rigid requirements of the Local Government Board as to personal attendance are particularly burdensome to a medical man who has a private practice of even moderate size. The question has been put to us—Are these rigid rules for personal service absolutely necessary? The answer must be—They were necessary at the period of their institution but they are so no longer; neither is it possible for them now to be observed in the large workhouses. At the date of the issue of the General Consolidated Order a vast amount of medical work in the practices of the country was performed by unqualified assistants and by pupils or apprentices. It was fitting, therefore, that the Poor-law Commissioners should impose conditions upon all holders of parish medical appointments and they did so effectually. Their object was to prevent the sick and infirm inmates of the workhouses being left to the care of persons only partially educated in their professional duties. The result was good, but times have changed and there is

now justification for a reconsideration of the circumstances. The pupils and the unqualified assistants have had their day. Few of them can at this period be found. The assistants of medical practitioners are not only legally qualified to practise their profession but their training at the hospitals has been, both in duration and in the number of subjects taught, far beyond that given to the principals of 1847. We therefore arrive at the conclusion that there is no longer any necessity for the workhouse medical officer to be debarred from using his duly qualified assistant as a substitute, within certain limits; always providing that the qualified assistant has been named to the guardians and approved by them.

There is, however, another aspect. Workhouses have grown immensely in size since the regulations for their administration were constructed. Many can now be found each containing over 1000 inmates and many have in their sick wards more than 500 patients. One that is well known to us is not by any means the largest but it has over 1700 beds without the infirmary, which contains nearly 300 more. For this vast population there is but one recognised medical officer. Obviously it is impossible that he can give personal service in every case of sickness. One minute a day for each of 600 patients would mean ten hours' work. The difficulty is met by the appointment of several assistants and by the division of the medical duties. In another workhouse infirmary there are two non-resident medical officers and two resident assistants, but which is the responsible official it is beyond our power to decide. We mention these facts in order to show that the regulations of the General Consolidated Order of 1847 are not observed in all Poor-law institutions, that owing to the numbers of the patients to be attended they cannot possibly be observed in every workhouse by one medical officer, and that a revision of the regulations and an adaptation of them to modern conditions are much to be desired.

The University of London and Dental Surgery.

As the Faculty of Medicine of the University of London has under consideration the institution of degrees in dental surgery, it may be opportune to consider briefly the various phases of this important question, and the more so as there is a marked divergence of opinion among those who have considered this matter in its bearings upon dental education. There is a section which considers that the right course to pursue for the advancement of dental surgery is to raise the standard of the training all round, in fact, to bring the general curriculum up to the standard required of students of medicine as a whole. On the other hand, a considerable, if not so numerous, body of persons, having a good right to form an opinion, hold that the advance should be made by the institution of higher dental degrees, the curriculum being rendered more stringent mainly by requiring from the student a wider and deeper knowledge of the special subjects of dental surgery. These two parties are both represented on the board of studies of dental surgery of the University of London and they have embodied their views in two reports which are now under the consideration of the Faculty of Medicine. The majority report, we believe, considers that if the University deems it advisable to institute a degree in dental surgery then it should only be granted supplemental to a medical degree. The minority report advises the institution of a separate degree in dental surgery, the requirements in general subjects being in advance of those at present demanded by the different licensing bodies.

Under the Dentists Act the only registrable diploma in the United Kingdom is a licence in dental surgery and this is at present granted by the Royal Colleges of Surgeons of England, of Edinburgh, and in Ireland, and the Faculty of Physicians and Surgeons of Glasgow. The framers of the Dentists Act were strongly of opinion that only one diploma should be instituted for practitioners in dentistry so that the multiplicity of qualifications, which has imported many difficulties into the practice of medicine in this country, should be avoided. Their action was sound and all educational bodies should agree with it and should keep clearly in view that the object of degrees and diplomas is mainly to guide the public so that the public may know when it is dealing with a qualified man. The multiplicity of qualifications is bewildering to the public and serves no good purpose. It leads it to attempt to discriminate between one qualified man and another qualified man, while protection is really needed against the charlatan and quack who frequently place after their names meaningless letters simulating regular qualifications. The University of London in establishing examinations in dental surgery will either grant a licence similar to that of the various colleges or it will establish a degree which can be registered as additional to the licence in dental surgery obtained through one of the medical corporations. If the desire of those urging upon the University the establishment of a dental degree is that the examination should be considered a qualifying one in dental surgery similar to that of other colleges, then there is no reason why the University should not grant a licence in dental surgery; but if the desire is that the degree should be regarded as a higher qualification than the licence in dental surgery then we are strongly of opinion that it should only be conferred as supplemental to a medical degree. Dentistry is to be regarded as an integral part of medicine, a view held, we suppose, by the advocates of higher dental diplomas; and dentistry can only obtain and retain that position by examining its students in a similar way to that in which other members of the medical profession are examined.

The weakness of the present qualifying examinations in dentistry lies in the low standard of knowledge required on general subjects and any step towards higher qualification can only rationally be made by requiring a better foundation of knowledge. The scheme suggested by the majority of the board of studies is that a degree in dental surgery (even if it is advisable to establish one) should be granted only to those possessing the M.B. and B.S. degrees of the University. The minority suggests that the student for the degree should pass the first examination for the degree of M.B. and that the examination in surgery and pathology should be similar to that for the degree of B.S. Medicine and therapeutics are, it will be seen, to be ignored not only in the curriculum

required but also in the examination. The latter scheme seems to us to be retrograde, for day by day it becomes clearer that a thorough knowledge of the surgical branch cannot be acquired without a comprehension of the principles and practice of medicine as a whole. If the practice of surgery were confined to operations then perhaps the position assumed by the constructors of the minority scheme for the granting of dental degrees in the University of London might be intelligible, but surgery is not a higher grade of cabinet-making. Surgery entails for its scientific practice a thorough knowledge of the principles underlying medicine as a whole. Dental surgery may be regarded from exactly the same standpoint. In some quarters it has been, and still is, the tendency to estimate the practice of dentistry as something requiring simply manipulative dexterity, but this view has arisen partly from a want of knowledge of the processes underlying dental disease and not a little from that narrowed vision which the training of the dental surgeon produces and which can only be made broader by raising the standard of general and scientific education. With the increased number of medical men specially qualified as dental surgeons a marked advance in dental pathology has taken place and the inter-dependence of dental lesions, more especially of the gums and periodontal membrane, and general systemic conditions has been shown. The dental surgeon in his practice is constantly dealing with cases which require for their rational treatment a knowledge of medicine, a fact which the authors of the minority report do not appreciate, in our opinion, in its right significance. They would not, we are sure, consider that such well-defined branches of medical practice as, say, ophthalmic surgery or gynæcology, should be practised by men with only a scant knowledge of general medicine and surgery. To our thinking, dental surgery should rank with the other special branches; at any rate, all who practise dental surgery should be found wishing this, for only in this way can the scientific status of dentistry be maintained.

Annotations.

"Ne quid nimis."

THE ROYAL MILITARY TOURNAMENT.

FROM a practical point of view one of the most interesting items in the programme of the Royal Military Tournament now being held at the Agricultural Hall, Islington, is the display by the recruits from the Marine depôt at Deal who have been in the service for six months only and whose average age is 18 years. These lads have had but 45 days' gymnastic training, yet their muscular development, agility, and smartness in response to the word of command are wonderful considering the brief period of instruction. The exercises which they go through bring into play all the important muscles of the body and educate at the same time the intellectual faculties. In previous years at the Tournament similar exercises have been practised by non-commissioned officers under training at the headquarters gymnasium, Aldershot, who if we mistake not underwent a six months' course and not a 45 days' course. Undoubtedly the non-commissioned officers from Aldershot showed remarkable muscular power combined with intellectual activity both while acting individually and collectively. So do the Marine recruits, but it is distinctly noticeable that some of them are working at the highest possible strain. It speaks well both for officers and for men that such remarkable results should have been accomplished in so short a period as 45 days, but there must be always some risk in a too strenuous and hasty endeavour to build up muscle. It remains to be seen what the effect will be when, after completing their course, the men relax their training, for it must be remembered that over-taxation of the vascular system may produce untoward results at a subsequent time. A curtailment of the period of training may, therefore, in the end be a means of loss instead of gain to the service. Another noteworthy example of strength and ability is the display by the Royal Marine Artillery. The general idea of this display is to show how a gun with its mountings landed from a man-of-war can be transported and mounted in an extemporised manner on shore. The gun, mounting, and stores, together with the wagon on which they are placed, weigh six tons and are drawn into the arena by 38 men. The slinging and unslinging of the gun on the extemporised gin require some skill and precision in placing the gun centrally. When the men begin this kind of training the weights with which they have to deal tax their strength to the utmost. At the Tournament, however, the gun is manipulated with as much ease as if it were a toy. Altogether this is a truly remarkable performance. In this connexion it would not be fair to leave unnoticed the display by seamen of His Majesty's ship *Excellent* with 12-pounder guns. The way in which these guns are manœuvred, mounted and dismounted, and lifted with ease over an obstacle representing a wall must be seen to be appreciated. These three items in the programme alone form an object-lesson which it would be well for everyone to see.

INSURANCE AGAINST APPENDICITIS.

THE sudden increase in the popular knowledge of appendicitis has given rise to the idea that the malady occurs more frequently than is really the case, with the result that it is dreaded more than it need be. So it has even happened that it has been thought advisable to insure against the loss of time and of money entailed by an attack. The Royal Exchange Assurance Company is willing to issue policies of insurance at the rate of 5s. per annum for every £100 and a policy may be effected up to £500. By such a policy the holder is guaranteed all the medical, surgical, and nursing expenses, up to the amount insured, incurred by an attack of appendicitis. The company points out that this premium may be largely increased in the near future, for it is obvious that at present the "risk" of such a policy can be only very indefinitely estimated. The only data supplied by the leaflet which we have seen are that during 1900 15,000 operations for appendicitis were performed in the United Kingdom and that the mortality of these operations was 10 per cent. We are not aware whence these statistics have been obtained and, in fact, we cannot see how it is possible to discover the number of operations because the vast majority are never recorded. Be this, however, as it may, it must be borne in mind that many cases diagnosed as appendicitis recover without operation and therefore the total number of cases should be much greater. In the proposal for insurance there is one important question to be answered. It is this: Have you or has any member of your family ever suffered from appendicitis or from any of the symptoms pertaining to it? This is a very wide question, for apparently a negative answer would mean that neither the would-be insurer nor any member of his family had ever had a pain in the right iliac fossa. Another difficulty is that it is not clear what the word "family" includes. It is possible that this question is

inscribed only to obtain statistical information as to the family liability to appendicitis, for at present it cannot be laid down that the disease is specially prone to attack certain families. In the "declaration" also the insurer has to state that he has no reason to believe that he is specially liable to the disease. There is one important condition attached to these policies: the liability of the company does not commence until one month after the proposal has been accepted and the premium has been paid, so that it will not be possible for anyone who experiences symptoms which he thinks may be due to appendicitis to rush off and to insure. The utility of the scheme depends entirely on the liability there is to an attack of appendicitis. Should the disease arise the loss of money incurred by medical, surgical, and nursing expenses would certainly be very troublesome to many and anyone attacked would be very glad to have insured against this sudden expense by the payment of such a small premium and if anyone feels inclined to insure there cannot be any harm in doing so. From the amount of the premium we see that the company estimates the probability that any individual will be attacked by appendicitis in any one year as at most less than 1 in 400 and we should feel inclined to think that the risk is very much less than this, but no statistics exist to show the percentage of attacks in the general population though they may be obtainable for such bodies of men as the army and the navy. As many cases, in this country at least, are not submitted to operation disputes might easily arise as to the accuracy of the diagnosis. Moreover, it has not rarely happened that appendicitis has been diagnosed, the abdomen has been opened, and some other lesion has been found. If the patient had been insured we can imagine his disappointment when he found that the fees and other expenses were payable out of his own pocket. We would not in the least dissuade anyone against insuring, but we must confess that in our opinion a wider policy to include any similar severe illness would prove much more useful in practice. At present it is possible to insure against sickness and accident, but the sum paid is so much per week and does not necessarily cover the expenses incurred.

NOTIFICATION FEES.

NOTWITHSTANDING the fact that the Notification Act has now been in operation for many years the subject of the fees payable under its provisions seems to be a never-ceasing topic for discussion and dispute. This is, we expect, partly due to the fact that a copy of the Act itself is possessed by few medical men and partly to the absurd fee of 1*s.* which is paid to those who notify cases of notifiable diseases in their capacity as officers of public institutions or bodies. We can quite understand that district medical officers under the Poor-law and others who are not quite familiar with the statutes are unwilling to believe that the legislature has provided no further fee than 1*s.* for the trouble of notifying the cases of infectious disease with which such officers are brought into contact during the performance of their official duties. We have recently had a case brought to our notice of a district medical officer who is content with the customary 1*s.* for cases concerning which he has received a relieving officer's order but who claims 2*s.* 6*d.* in respect of subsequent cases occurring in the same house but as to which no order has been given. We are afraid, however, that, assuming that the cases were treated by the district medical officer in his official capacity, the smaller fee is the only one that can be legally paid. The words of the Infectious Disease (Notification) Act, 1889, which govern the situation, are: "and of one shilling if the case occurs in his practice as medical officer of any public body or institution." Unless, therefore, the cases to which reference has been made were attended by the district medical officer in his capacity of a private practitioner he is not entitled to the larger fee of 2*s.* 6*d.* It would seem improbable, seeing that an order had been procured for one member of the family, that any other member thereof could be regarded as employing a medical man as a private practitioner, and it would seem more probable that there has been some omission on the part of the relieving officer or the district medical officer, in the one case in supplying an order or in the other of notifying the fact of attendance without an order. So far as we are in possession of the facts we do not think that the case to which we refer is one in which a fee of 2*s.* 6*d.* could be reasonably claimed.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE Council opened its summer session on Thursday, May 21st, at 2 P.M., Sir William Turner, K.C.B., the President, being in the chair. The session this year is being held somewhat earlier than usual in order that Whitsun-week may be avoided. After hearing the President's address the Council proceeded to the consideration of various matters of medical education. Our usual report of the proceedings will be commenced in our next issue.

THE PHARMACEUTICAL SOCIETY.

THE annual dinner of the members of the Pharmaceutical Society of Great Britain and their friends was held under the chairmanship of the President, Mr. G. T. W. Newsholme, in the Whitehall Rooms of the Hôtel Métropole, London, on May 19th. After the usual loyal toasts had been duly honoured Mr. Newsholme from the chair proposed the toast of "The Houses of Parliament," which was replied to by Mr. J. F. Remnant, M.P., who, referring to the new Pharmacy Bill, said that he had heard some criticism in the House in regard to that clause which says that a director of a company must be a qualified druggist before he can deal with the ordinary business of a druggist. Concerning that matter there was an opinion given in the House of Lords that the Act could not apply to directors of limited liability companies. This toast was also acknowledged by Mr. E. Marshall Hall, M.P., who declared that the new Pharmacy Bill could not pass into law in anything like its present form and he advised the society to accept half a loaf as better than nothing at all. He suggested that the Pharmaceutical Society should obtain powers over its members in the same manner as the General Medical Council has over medical men. If it could bring the power, influence, and prestige of the society thus to bear on its members then it would have a remedy against the evils which it was anxious to eradicate. Mr. Marshall Hall bluntly told his audience that a large portion of the business of a druggist as now carried on could be intrusted to unqualified assistants and even to shop lads. So long as the public made no discrimination between a qualified druggist and a salesman of sundries so long would it be difficult for Parliament to deal with the evil. But the Pharmaceutical Society armed with the powers which he had suggested could undertake the matter. In regard to the companies trading as druggists the department particularly concerned with the business of the druggist should be managed by a properly qualified druggist. The toast of "The Medical Profession" was proposed by the chairman and responded to by Sir William S. Church who drew attention to the embarrassing multiplicity of the compounds turned out for the use of medical men by the synthetical chemist. If physicians needed to be careful in the use of drugs the public ought to be careful in the use of the so-called chemical foods, though if one half of the advertisements about these foods could be believed not only would they ward off disease but they

would even overcome death itself. The chairman then proposed "The Pharmaceutical Society of Ireland" which was acknowledged by Mr. G. D. Beggs. He was followed by Sir A. W. Rücker, principal of the University of London who, in proposing "The Pharmaceutical Society," gave in detail the reasons for hoping to effect some connexion between the new University of London and the society. The chairman suitably acknowledged the toast and then proposed "Local Pharmaceutical Associations" which was acknowledged by Mr. W. Giles of the Aberdeen Pharmaceutical Association. M. E. Léger of the Pharmaceutical Society of Paris responded to the toast of "Our Guests," which was proposed by the chairman, after which the proceedings terminated.

THE PATHOLOGY OF DWARFISM.

THE pathology of dwarfism like that of gigantism has for long remained an obscure matter and it is only recently that light has been thrown upon the morbid processes underlying both these conditions of abnormal bodily development. In THE LANCET of March 14th, p. 747, an account was given of the pathology of gigantism and it was shown that certain cases of extraordinary growth in length of the bones and limbs were due to a morbid process allied to the condition known as acromegaly. In the *American Journal of the Medical Sciences* for May Dr. Ludwig Hektoen of Chicago contributes an interesting post-mortem study of a dwarf, which is placed on record as affording further insight into the nature of the pathology of certain obscure anomalies of osseous development allied to cretinism and rickets which result in stunted or dwarfish development. In this case, as in cases of gigantism studied post mortem, certain changes were found in the thyroid and pituitary bodies the significance of which will be alluded to below. The patient was a man, aged 45 years, a short-limbed dwarf, of fair average intelligence. He could not walk very well and earned a living by selling lead-pencils and chewing-gum. He generally used a roller-chair for locomotion. He was given to alcoholic excess and died from a ruptured gall-bladder. The post-mortem examination revealed the following interesting conditions. The long bones of the upper and lower limbs were excessively curved and marked by nodular enlargements, especially at the articular ends. The legs were notably short, the patient being an example of a micromelic or short-limbed dwarf. The spinal column was of average length but there was a marked degree of kyphosis, the whole dorso-lumbar and lumbo-sacral region being strongly curved with the concavity forwards. The viscera did not show signs of organic disease with the exception of the thyroid body which was atrophied, fibroid, and weighed only nine grammes. The aorta was small and measured nine millimetres in diameter. The bones were the chief objects of interest. Sections of the various long bones showed an exceedingly spongy structure (osteoporosis). The spine and pelvis as well as the limbs were unusually bent or misshapen. The cranial vault was relatively large but its structure was most anomalous as it consisted of 172 Wormian bones. The base of the skull showed no evidence of premature synostoses of the sutures. The pituitary body and the sella turcica were much enlarged. In discussing the nature of the morbid process which led to this remarkable hypoplasia and defective development of the skeleton Dr. Hektoen passes in review the four possible etiological factors—rickets, cretinism, osteogenesis imperfecta, and chondrodystrophia fœtalis. The condition of the cranium both as regards its vault and base suggests strongly the presence of osteogenesis imperfecta as described and illustrated in the memoirs of Stilling[1] and Harbitz.[2] Most cases of osteogenesis imperfecta hitherto recorded have, however, terminated fatally in infancy, the present case being a rare instance of a person afflicted with this disease surviving to adult life. The patient was not a cretin, adds Dr. Hektoen, for he had not the physiognomy or the bodily development of a cretin, while his intelligence was of the average grade and he was free from signs of myxœdema. The evil effects of fibroid atrophy of the thyroid gland—a process which ordinarily would give rise to myxœdema or which, if it occurred early, would produce cretinism—were in this case compensated or wholly alleviated by a hypertrophy of the pituitary body the weight of which was found to be considerably above the normal. The histological structure of the pituitary body was, moreover, normal in this case. The patient's ribs were beaded and excessively curved, but, says Dr. Hektoen, ordinary rickets could be excluded in the present case owing to the porosity of the bones, whereas in rickets an increased density of the bones is met with. The lesion was more probably of the nature of so-called "fœtal rickets" or chondrodystrophia fœtalis—"a disease known to have existed even in ancient times, since statues of the Egyptian god Phtah and other deities are good representations of the external appearances produced by this disease," as has been shown by Harbitz (in his memoir referred to above) and by Charcot and Richer in their classical work, "Des Difformes et les Maladies dans l'Art," Paris, 1889. The lesions of the thyroid body and the compensatory hypertrophy of the pituitary body in the present case are apparently conditions giving rise to disturbances in the development of the osseous system—disturbances common alike to gigantism, acromegaly, and dwarfism. The proximate cause of the pathology of dwarfism is thus brought into light and shown to be a nutritive disturbance associated with changes in the thyroid and pituitary bodies, but the ultimate cause of the osteogenesis imperfecta still remains, concludes Dr. Hektoen, a problem for future solution.

[1] Virchow's Archives, 1899.
[2] Ziegler's Beiträge, 1901.

TENT LIFE FOR THE DEMENTED AND UNCLEANLY.

THE experiment of treating the tuberculous insane in tents, concerning which subject a leading article was published in THE LANCET of May 2nd, p. 1249, was initiated two and a half years ago by Dr. A. E. Macdonald, medical superintendent of the Manhattan State Hospital East, New York. The scheme proved such a success that it was decided to open another camp for filthy and demented patients. Accordingly in July, 1901, 20 patients of that class were selected for undergoing the system of tent life. At the last annual meeting of the American Medico-Psychological Association held at Quebec last year, a reprint of the proceedings of which now lies before us, Dr. Arthur B. Wright of the Manhattan State Hospital for the Insane gave an account of the working of this scheme. Most of the patients were very stupid and demented, taking little or no interest in their surroundings or in their own welfare. Of the 20 patients it was noticed that 19 showed physical improvement and increase of body-weight after three weeks of residence in the tents. The remaining patient continued unchanged a little longer, but after six weeks he began to manifest decided improvement. All the patients improved both physically and mentally and several of them whose habits had been previously wet and dirty began to attend regularly to the calls of nature and to develop more cleanly habits. Two general paralytics exhibited marked improvement. Both at first were practically bedridden but at the end of three months were among the most active. The situation of the camp being in a most pleasant spot on the east bank of the island the steamers and excursion boats which were continually passing were watched by the patients, while the music on

board the vessels was listened to with interest. All the patients showed increased appetite, greater interest was shown in papers, magazines, and games, while more cheerfulness and mental brightness seemed to prevail. During warm and pleasant weather the flaps of the tents were rolled up so that a free circulation of air was established, and the few patients who remained in bed were practically out-of-doors. The experiment of tent life for this class of the insane was, adds Dr. Wright, an entire success. Several of the patients have been closely observed since the breaking up of the camp, and it was noted that some of them tended to relapse into their former habits. It is intended, says Dr. Wright, to open another camp during the summer of 1903, for the same class of patients as well as a camp for convalescent patients.

CYCLING AND MOTOR-CARS.

ALTHOUGH cycling is still a popular pastime, yet there is distinct evidence, we think, that it is not so universally or so vigorously pursued as it used to be a year or so ago. Possibly this is due to the counter attractions of golf and motor riding. We rather incline to the view that the cyclist is being gradually driven from the road by the motor-car which all must agree has not made the road a pleasanter highway. It is a common remark that cyclists take more frequently to the by-roads than formerly because the high-roads have been almost monopolised by the motor-car. The noise and dust and pace of the motor-car have taken the poetry completely out of a ride on the high-road. The risks of cycling have been enormously increased and already a crop of accidents to cyclists has been reported having their orgin in fast-driven motor cars. The dust created is not only most unpleasant but also very unhealthy for on any favourite high-road out of London the condition created by the motor-cars is one of chronic dust like a fog. All this doubtless the cyclist can avoid by taking to the by-roads, but when on a tour these roads are often not direct, while their surfaces may not be good and there are no sign-posts or caution boards by the wayside to guide him. At night time the danger to the cyclist from motor-cars is considerably increased. Indeed, to many cyclists the motor car is a source of terror on the road, the timid dismount as soon as they hear its rattle behind them and others, realising what awkward consequences might ensue from a false turn of the steering gear, give the motor-car the widest berth possible. Again, it is to be feared that some few motor drivers, knowing the terror which they inspire and that they are masters of the situation, are deliberately discourteous and allow the smallest margin possible for a cyclist to pass. Is it then a matter for wonder that the healthy and enjoyable pursuit of cycling should be somewhat on the decline? But it is a pity that it is so and we can only hope that impending legislation with regard to the regulation of motor-cars may not ignore the claims of the cyclists to consideration.

THE LYMPHATICS OF THE URETERS.

DIFFERENCES of opinion exist in regard to the distribution of the lymphatics in the walls of the ureters, Krause, for example, stating that the lymphatics form a superficial wide-meshed plexus of vessels in the mucous membrane and a well-developed plexus in the submucosa. The vasa efferentia or larger abducent ducts are situated in the tunica adventitia. Sappey, on the other hand, remarks that in the horse the lymphatics of the ureters arise exclusively in the muscular tunic. If the internal or mucous surface be pricked no vessels appear, but as soon as the point of a syringe charged with mercury penetrates the superficial layer the mercury enters a system of capillaries which forms a very distinct network extending with irregular meshes throughout the whole length of the duct. The subject has again been studied by Dr. K. Sakata, in the Anatomical Institute of Breslau, and his conclusions are that no plexus of lymphatic vessels can be demonstrated by Gerola's method of injection in the mucous membrane or in the submucous tissue of the ureter. Such a plexus is, however, to be found in the muscular tunic and in the adventitia, where the vessels are larger and run parallel to the blood-vessels. The vasa efferentia are most conspicuous in the middle portion of the ureter and pass to the lumbar glands which lie close to the aorta and vena cava inferior and to the mesial side of the common iliac artery. The lymphatics of the lower segment of the ureter terminate either in the hypogastric glands or anastomose with the lymphatics of the bladder. The lymphatics of the upper segment only occasionally end in the glands that lie at some distance at the side of the aorta; in other instances they join the lymphatics of the kidney. The lymphatic vessels which establish a connexion between those of the bladder and those of the kidney do not take a direct course between these organs but either form afferent vessels running to glands or join the lymphatics of the ureter. Coloured drawings illustrating the above statements accompany the text which is to be found in the number of the *Archiv für Anatomie und Physiologie* of Professors His and Engelmann for March, 1903.

CAMBRIDGE SCIENCE SCHOOLS.

THE large lecture room of the engineering laboratories' new wing at Cambridge was the scene of an interesting ceremony on May 11th when a bust of the late Dr. John Hopkinson was unveiled. What Sir George Humphry and Sir George Paget were to Cambridge in the matter of a medical school that was Dr. John Hopkinson with regard to the engineering school of the University. In other words, it is hardly too much to say that he was the founder of the engineering school which is now flourishing at Cambridge. To have achieved a result such as this is, as Lord Kelvin observed in his remarks at the ceremony on May 11th, to have benefited, not only Cambridge University, but the world at large. The practical benefits which are spread through scientific training at a university are well recognised by men of business and it is an appropriate evidence of such recognition that the chairman of the Linotype Company, Sir Joseph Lawrence, should have presided at the unveiling of Dr. Hopkinson's bust, the bust itself being the gift of the company to the University of Cambridge. One thing that is often not recognised by business men is the pecuniary difficulty which the ancient universities find in providing for the necessary advances in scientific teaching. Professor Ewing told a very *àpropos* story on this point at the gathering on May 11th and we hope that his words may lead to an increase in the coffers of the science schools of the University of Cambridge, where the medical faculty does such good work and is so much in need of financial help.

RICHTER'S HERNIA.

"RICHTER'S hernia" or "partial enterocele" is the name applied to the condition when only a portion of the circumference of the bowel is included within the hernial sac. It was formerly confused with Littré's hernia—that is, a hernia of Meckel's diverticulum—but Sir Frederick Treves suggested the suitability of the application of the name of Richter to the partial enterocele, as it appears to have been clearly described by him in 1779. Mr. McAdam Eccles has pointed out, however, that Lavater wrote an account of this variety of enterocele in 1672, though his description was not published until 1755, and that therefore Lavater's name might reasonably be associated with

this condition. The late Mr. J. W. Hulke made it clear that Littré described not only the hernia of Meckel's diverticulum, now called a "Littré's hernia," but also in 1714 a true partial enterocele, for he distinctly refers to the fact that the whole circumference of the bowel was not included. Thus it is clear that the honour of first recognising the condition must be shared, but as Littré's name is now applied to another variety of hernia and as Richter's name is usually given to partial enterocele it would probably be well to retain the present designation. The condition is not a mere pathological curiosity. So long as no strangulation occurs a partial enterocele is not to be distinguished from an ordinary enterocele, but it is when this variety is strangulated that the peculiar importance of the condition is seen, for in about two-thirds of the cases the signs and symptoms of strangulation are obscure or incomplete. The bowels may continue to act during the whole progress of the strangulation or they may be opened by aperients. Even persistent diarrhœa may occur. Inasmuch as frequently there is no blocking of the lumen of the bowel, tympanitic distension of the abdomen is rare; and even when the site of the hernia is examined it may be difficult to detect it, for often it forms a very small swelling. Some degree of vomiting is frequently present but it is usually not severe and is rarely feculent. In spite, however, of the mildness of the symptoms the mortality is very heavy, amounting in the 53 cases collected by Sir Frederick Treves to over 62 per cent. This heavy death-rate is in part to be accounted for by the obscurity of the symptoms, with consequent delay in operation, and partly to the tightness of the constriction. The hernia is usually of the femoral variety, for at the crural ring there especially exist the conditions required for the nipping of a part of the circumference of the gut. It is of interest to note that a large proportion of obturator hernias are partial enteroceles and this may help to account for the obscurity of the symptoms in that form of hernia. Richter's hernia is probably less rare than might be imagined from the number of recorded cases, but it is probably often unrecognised. In the present issue of THE LANCET (p. 1444) are the notes of two instances of this interesting lesion which were under the care of Sir William J. Collins.

ANNUAL DINNER OF THE SANITARY INSTITUTE.

THE members and friends of the Sanitary Institute dined together on May 15th at the Hotel Cecil, London, the Duke of Cambridge, the President of the institute, being in the chair. In replying to the toast of the "Queen and Royal Family," proposed by the Duke of Northumberland, the Duke of Cambridge said that the work and welfare of the Sanitary Institute had always interested him and as long as he was granted health and strength he would be willing to promote its prosperity. "The Navy, Army, and Auxiliary Forces" was given by Sir Francis S. Powell and was replied to by Sir Henry F. Norbury (Director-General of the Royal Navy Medical Department) who gave some interesting details concerning the increase in the navy. This toast was also acknowledged by Lieutenant-Colonel A. S. Jones, V.C. Sir Henry G. Howse, President of the Royal College of Surgeons of England, proposed the toast of "The Houses of Parliament" and pointed out that the members of the Sanitary Institute included eminent engineers, members of the House of Lords and members of the House of Commons, scientific men, and representatives of municipal authorities and of the medical profession. The meeting together of these members of the Sanitary Institute must be useful in crystallising their views in regard to sanitary legislation. Lord Monkswell and Mr. Talbot, M.P., acknowledged the toast. In proposing the toast of "The Sanitary Institute" Sir William S. Church, President of the Royal College of Physicians of London, congratulated the institute on its flourishing condition. In the course of some interesting remarks on the history of sanitary legislation Sir William Church described how in the archives of the City of London there were some instructive accounts of the measures taken to benefit the health of the people. The beadles of the City were enjoined to perambulate the streets and to prevent swine straying, and further they were ordered to arrest all vagrant men because, as the directions went on to explain, these men might be the cause of spreading disease. He urged the Sanitary Institute to spread the knowledge of sanitary matters among the people and to continue holding congresses in provincial cities, thereby attracting general attention to the subject of hygiene. The institute had done good work in giving 470 lectures which were attended by upwards of 22,000 people. After Mr. W. Whitaker had briefly acknowledged the toast the company separated. Amongst those present besides the speakers were Sir H. Crawford, Sir S. Black, Sir A. Binnie, Major R. Ross, Dr. L. C. Parkes, and Dr. W. Collingridge.

POST-GRADUATE STUDY IN LONDON.

IT is satisfactory to hear that the Association of London Hospitals and Medical Schools, which offers such exceptional advantages for clinical study to qualified medical men, is still steadily increasing its scope. We are authorised to state that the London Hospital has now joined the scheme which is therefore complete so far as it embraces all the institutions recognised by the University of London for medical education—viz.:—*General hospitals:* Charing Cross, Guy's, King's College, London, Middlesex, St. Bartholomew's, St. George's, St. Mary's, St. Thomas's, University College, and Westminster. *Special hospitals:* The Brompton Hospital for Diseases of the Chest, the Hospital for Sick Children, Great Ormond-street, the London School of Tropical Medicine, the National Hospital for the Paralysed and Epileptic, and the Royal London Ophthalmic Hospital. The wealth of clinical material in London is almost incalculable but unfortunately its value for post-graduate instruction is materially diminished, partly by the extent of the area over which it is spread and partly by the lack of connexion between the various hospitals in which it is contained. The one difficulty, that of distance, is of course irremediable; the other, that of lack of coördination, is to a large extent met by the present scheme, and for that reason we wish it continued success. The fee is moderate (seven guineas for a three months' course and ten guineas for six months) and should offer no obstacle to those who wish to devote some time to clinical study in medicine, surgery, or any of the special departments. Particulars may be obtained on application to the Secretary, the Associated Schools of Medicine in London for Post-Graduate Teaching, Examination Hall, Victoria Embankment, London, W.C.

THE PREVENTION OF DUST DISEASES.

THE Society of Arts is once again directing its attention to the means of protection available against diseases due to the inhalation of dust. Under the terms of the Benjamin Shaw Trust the council of the society has just offered a prize of a gold medal, or £20, for the best dust-arresting respirator for use in dusty processes and dangerous trades. Specimens with full description may be sent in to the society's offices in John-street, Adelphi, until Dec. 31st next. Competitors must themselves look to the securing of any patent rights which they wish to retain. There is, of course, no lack of respirators already, but such as are actually in use are open to objections, not all of them very reasonable, perhaps, which seriously diminish their value. Male workers object to respirators because of their general inconvenience, while factory girls, like girls more happily situated, are often ready to sacrifice health to appearances. Possibly, too, the

old objection that lessened risk means lowered wages has still some force. The society aims at finding a respirator which shall be simple in construction, light, cheap, and sightly, one which can be worn for hours without interference with respiration, and one which will not permit expired air to be breathed again. An apparatus satisfying all these requirements would have a certain sphere of usefulness, but we are a little doubtful whether the society is working on the right lines. Even supposing that a thoroughly efficient respirator impermeable to dust were devised we fear that the difficulty of getting workpeople to wear it would not be easily overcome. Even if worn it would afford no protection against poisonous vapours and while it might limit the field of pneumonokoniosis and enterokoniosis it would have no application to the important group of lesions included under the term dermatokoniosis. The plan of carrying on the work before an upcast shaft so that dust and vapours are at once borne away by a current of air seems rather the one deserving of encouragement.

RECENT DISCOVERIES ON THE CAUSATION AND TREATMENT OF HAY FEVER.

THREE interesting contributions to the subject of the causation and treatment of hay fever have been recently published. In the *Berliner Klinische Wochenschrift* of March 2nd Dr. G. Rosenfeld of Berlin refers to the question of hay fever as caused by the pollen of certain flowers and adds to the list a plant hitherto unrecognised as a cause—viz., the plantus occidentalis which is found in bloom in the neighbourhood of Stuttgart from the middle of May to the end of June, during which time hay fever is prevalent in that locality. The symptoms of hay fever caused by it are of the usual type and can be reproduced by experimental insufflation of the pollen into the nostrils. In the *New York Medical Record* of March 28th Dr. Raymond Wallace emphasises the fact that a neurotic predisposition to the affection exists in persons who develop hay fever. Persons who are "naturally highly strung, excitable, irritable, neurasthenic, having 'nerves' which are literally 'on the surface,' are those who are more liable to this affection than are the more phlegmatic types." The element of periodicity which is generally observed in attacks indicates that a psychical factor is concerned in the etiology of hay fever as exemplified in the case of a patient who has had attacks on August 15th of one year and who began to suffer in subsequent years on the same date. A neurotic young woman, aged 25 years, known to Dr. Wallace, suffers regularly from three attacks per diem on certain days. Thus upon arising from bed she always anticipates an attack and it always comes on unless she can abort it by firm pressure upon the upper lip. In the afternoon at the lunch hour a second attack follows and at night on retiring to her bedroom the third attack occurs. Another case was that of a young man, aged 30 years and of neurotic constitution. He suffers from hay fever in a regular and periodic fashion. Under medical treatment he does not have more than four or five attacks during the day. When at work in his office he is seldom troubled with an attack. But if he is spending the evening in society his mind dwells upon the possibility of an attack and of the embarrassment likely to be caused. He then has two or three attacks and is compelled to leave the room. Dr. Wallace has found that strong sunlight will in some persons provoke an attack of hay fever with its attendant symptoms of sneezing, vasomotor congestion of the nostrils, and coryza, the attack being caused reflexly by excitation of the vaso-motor centres through the optic nerve, and in the same way it has been observed that dust, pollen, and certain odours may act through the trigeminal and olfactory nerves and provoke an attack. The psychical element is, concludes Dr. Wallace, a factor of growing importance in many diseases and in hay fever it plays an important part. Dr. Dunbar, the physician in charge of the Institute of Hygiene at Hamburg, states in the *Deutsche Medicinische Wochenschrift*, No. 9, 1903, that he has succeeded in isolating the toxic substance from the pollen of grasses which is capable of producing hay fever in predisposed persons. He was thus able to reproduce attacks of the disease in winter by subcutaneous injection of a minute dose of the same. This toxic substance is not the ethereal or oily constituent of the pollen grains but is apparently, adds Dr Dunbar, an alkaloidal body. The attack of hay fever produced by it is intense. An attempt was made to produce an antitoxic serum from the blood of animals inoculated with this toxin. After some trials this was successfully effected and in the course of his experiments he inoculated eight patients with hay fever by instilling into the eye finely-ground pollen grains suspended in water. In every case the physical and subjective symptoms of hay fever were reproduced in varying degrees of intensity. The new serum was then tested by mixing some of it with the pollen and applying the mixture to the eye. "The eye itched slightly and appeared congested," but these symptoms disappeared in less than 30 minutes. The serum was equally effective against the pollen of various cereals.

COUNTY COUNCILS AND ISOLATION HOSPITALS.

THE Essex county council is apparently the first to take advantage of the Isolation Hospital Acts and to make grants systematically to the authorities which have provided isolation hospitals. Prior to the recent amending Act grants could only be made to hospitals erected under the Act of 1893, now grants can be made to any hospital, but the sanction of the Local Government Board is necessary if the hospital is erected out of current rates and therefore without the plans having received the approval of that Board. At the commencement of this year the Essex county council announced that it was prepared to make grants towards the maintenance of isolation hospitals and that applications were to be made before a given date. Applications were received from 17 out of the 19 authorities in the county which had provided hospitals. All these hospitals have been examined and reported upon by the county medical officer of health and the marks awarded range from 55 to 100, the latter being the maximum. In awarding the marks every point in connexion with the position, construction, and administration of the hospitals was taken into account, together with the adequacy of the accommodation for the districts served. The sanitary committee has adopted these marks as the basis upon which the grant shall be made and recommended that each authority should receive 2*s.* per mark per bed for the year ending March 31st, 1903. The best hospitals will therefore receive a grant of £10 per bed and the worst £5 10*s.* It is probable, however, that next year some other basis will be adopted, as the difference between the various hospitals is not sufficiently well marked to encourage the improvements and reforms which the county council wishes to see carried out. Of the 17 hospitals to which grants have been allotted six were erected out of current rates and therefore the approval of the Local Government Board will be necessary before the grants can be paid. These hospitals are all wood and iron structures of a so-called "temporary" character and it remains to be seen whether the Board will sanction grants to such hospitals. The possibility of a refusal is evidently recognised, as the sanitary committee recommends, if the Board's sanction is withheld, that no grant should be made to any hospital. The table prepared by the county medical officer contains a mass of interesting information. Amongst

other items it appears that the permanent isolation hospitals in Essex have cost from £360 to £700 per bed to erect, and that the establishment and patients' expenses have varied from £23 to £167 per bed. There can be no doubt that the attention which the county council is giving to this subject will ultimately result in a great improvement in the hospital accommodation and administration throughout the county.

A STATE REGISTER OF TRAINED NURSES FOR POOR-LAW INFIRMARIES.

AT a conjoint conference convened by the Matrons' Council and by the Society for the State Registration of Trained Nurses on May 8th at 20, Hanover-square, W., a paper was read by Miss Eleanor C. Barton, matron of the Chelsea Infirmary, entitled "State Registration of Trained Nurses as it affects Poor-law Infirmaries." The writer of the paper seemed to be in favour of the establishment by the State of a register of trained nurses, but she advanced nothing in the nature of argument to support such a procedure on the part of the Local Government Board beyond the conjecture that "when the State registration is inaugurated and the present chaotic state of the nursing profession is at an end the trained and disciplined nurses of our metropolitan infirmaries, who have as yet hardly been appreciated as they ought to be, will form a large and valuable addition to the nurses of Great Britain." The paper almost failed to carry out the promise of its title, for it did not—except in the extract given above—show the manner in which State registration of nurses will affect the Poor-law infirmaries. The paper touched lightly, from the nurses' point of view, upon the various branches of infirmary work and it also enumerated the great teaching opportunities afforded by the nursing of the many aged patients and others suffering from chronic diseases found in the wards of the modern infirmaries but rejected from the wards of the hospitals. With the actual statements contained in the paper we are quite in agreement, but underlying those statements there appeared to be two assumptions upon each of which we may make a few comments. The first was that the Local Government Board has the intention of establishing in the near future a system of State registration for nurses; and the second was that there will be an examination conducted by a State-appointed board of examiners. So far as we can ascertain there is of the intention mentioned no evidence whatever. Neither has it yet been clearly shown that the public and the authorities of the two great nursing institutions (the hospitals and the infirmaries) have arrived at an agreement upon the desirability of State registration of nurses. We have reason to believe that certain of these authorities hold the opinion that it would be unwise to inaugurate a system of registration until a defined curriculum and a recognised examination have been established. Granting that the Local Government Board had taken in hand the formation of a State register of nurses, there would still be little probability of the creation of a State-appointed board of examiners. A review of the action of the Local Government Board during the past few years will lead inevitably to the conclusion that there exists no predilection for examinations of nurses on the part of that Board. Women who have worked for 12 months in the sick wards of a workhouse and have received a small, indefinite amount of teaching are, without examination, to be accepted as qualified nurses by that Board. The superintendent nurses appointed under the General Order of 1897 are only required to have had a course of instruction for three years. They may have availed themselves of their opportunities to the smallest possible degree, for they have no examination to pass. Even if they have tried to pass one and failed they will still be eligible for the posts of superintendent nurses. It is true that in the report of the departmental committee upon nursing in workhouses recently issued there is a recommendation of a defined curriculum with a final examination, but there is nothing beyond the recommendation and the matter is treated in a vague unsatisfying manner, wanting in all indications of the scope of the curriculum, without suggestions as to the persons who are to arrange the details of the scheme, but with merely a stipulation that there shall be two independent examiners, one of them being a lady from a recognised training school. We leave the subject with the observation that the "present chaotic state of the nursing profession" (the wording is not ours) may be brought to an end, but the organisation of the chaos will require the concerted action of the nursing authorities of the large training institutions; the Local Government Board is not likely to initiate a scheme that will give general satisfaction but it may sanction one.

PHLEBITIS OF INFECTIOUS ORIGIN IN CHLOROSIS.

VENOUS thrombosis is a rare complication of chlorosis and its pathology is not fully known. In some cases it depends on phlebitis, which in its turn has been ascribed to microbes. They have been found in the blood of the inflamed vein and in the general circulation, but in no case have they been found in the venous lesion. Hence the importance of the following case described at the meeting of the Société Médicale des Hôpitaux of Paris by M. Paul Sainton and M. André Jousset. A well-developed girl, aged 18 years, was admitted to hospital on Feb. 6th. A fortnight previously she noticed œdema of the right ankle. Soon pain in the position of the external saphenous vein followed. She was pale and the skin was waxy white, slightly tinged with yellow. There was marked œdema of the right foot, ankle, and calf. A systolic, musical, almost whistling murmur was heard at the right border of the sternum. Over the left jugular vein near the clavicle vibration could be felt and a loud continuous *souffle* could be heard. The appetite was diminished and there was constipation. On Feb. 13th the right thigh was swollen and was five centimetres in circumference more than the left and its superficial veins were well marked. The pain was increased and situated in the position of the deep vessels of the limb. With this extension of the phlebitis the general condition, previously good, changed. There were slight pyrexia (an evening temperature of 101·3° F.), malaise, and anorexia. The urine become darker and contained indican. The blood was very pale and of specific gravity 1052 (instead of 1055). The red corpuscles numbered 2,300,000 per cubic millimetre, there was poikilocytosis, and the hæmoglobin index was 0 62. The white corpuscles numbered 10,000 per cubic millimetre. On Feb. 20th the swelling extended from the thigh to the abdomen and the course of the internal and external iliac vessels was tender. At the same time the œdematous skin became "marbled" with fine varicosities of ecchymotic appearance, especially at the upper part of the thigh. On Feb. 22nd the patient complained of a stitch in the right side and at the base of the lung behind slight dulness and diminished respiratory murmur were found. On the following day she complained to the patient in the next bed that "she could not feel her left leg and yet felt pain in it." She turned several times in the bed, suddenly placed her hand on her chest, complained of being stifled, had an attack of severe dyspnœa without cyanosis, and died in half an hour. At the necropsy the thyroid gland was found to weigh 15 grammes (instead of 25); the thymus gland was persistent and weighed 13 grammes (the normal weight in an infant). The aorta was narrow. The right pleural cavity contained 300 grammes of serous effusion and there

were numerous subpleural hæmorrhages. In the right lung was a large conical infarct two centimetres in length. In the right ventricle, in addition to post-mortem clots, was a small white elongated non-adherent clot. The pulmonary artery contained clots which ramified as far as the smallest branches to the left superior and right inferior pulmonary lobes. In the inferior vena cava thrombosis began gradually at a distance of seven centimetres from the sacral promontory. Into the left iliac vein the thrombosis did not extend far, but from the right the clot could be followed through the external iliac, femoral, popliteal, internal saphenous, and profunda veins. In the lower part of the femoral vein there was suppurative endophlebitis. The spleen was very large and diffluent. The affected femoral vein and the spleen yielded cultures of virulent diplo-staphylococci pathogenic to the rabbit. This case goes to show that the phlebitis of chlorosis, like other forms of phlebitis, is of microbial origin.

THE POSITION OF THE PUBLIC VACCINATORS.

THE following resolutions were unanimously passed after full discussion at a meeting of the Liverpool Medical Club last week. A representative body of medical men, including general practitioners, consulting practitioners, and public vaccinators, were present:—

1. That vaccination should be under the direct control and supervision of the Local Government Board in London.
2. That the post of public vaccinator should be a permanent appointment and that he be debarred from private practice, and that no certificate of successful vaccination shall be accepted from any private practitioner unless it comes up to the Local Government Board standard.
3. That all private practitioners be supplied free of charge with lymph from the Local Government Board on application on the prescribed forms.

Dr. J. Kingston Fowler will give the opening lecture of the summer session at the Hospital for Consumption and Diseases of the Chest, Brompton, on Wednesday, May 27th, at 4 P.M. The subject of the lecture will be the Diagnosis of Intrathoracic Tumours. We doubt if members of the medical profession sufficiently appreciate the value of the course of lectures delivered at this hospital. The amount of material at the disposal of the physicians and assistant physicians is unparalleled, so that the lectures are of an extremely interesting character. Their practical value is known to those who attend them but the attendance might well be increased.

Professor E. A. Schäfer, F.R.S., will read a paper on the Phenomena attending Death from Drowning and the Means of promoting Resuscitation in the Apparently Drowned in the rooms of the Royal Medical and Chirurgical Society, 20, Hanover-square, W., on Tuesday next, May 26th, at 8.30 P.M. The paper will be illustrated by means of the epidiascope. The council will welcome to the meeting any member of the medical profession or medical student interested in the subject.

The Prince and Princess Christian of Schleswig-Holstein have made the following appointments: Sir Francis Henry Laking, Bart., G.C.V.O., to be Physician in Ordinary, and Mr. William Fairbank to be Surgeon-Apothecary in Ordinary to their Royal Highnesses; and Mr. Willie Netterville Barron to be Surgeon-Apothecary to their Royal Highnesses' Household.

THE Medical, Surgical, and Hygienic Exhibitors' Association, Limited, will hold its Seventh Annual Exposition of Professional Exhibits at the Queen's Hall, Langham-place, London, W., on June 2nd, 3rd, 4th, and 5th, 1903, from 2 P.M. to 10 P.M. each day. Music will be rendered by a select orchestra every afternoon and evening.

AT the dinner of the Glasgow University Club, London, to be held on Friday, May 29th, the chairman, the Right Hon. George Wyndham, M.P., will be supported, among others, by Earl Lytton, the Right Hon. James A. Campbell, M.P., Mr. Scott Dickson, K.C., the Solicitor-General for Scotland, and Mr. W. J. Galloway, M.P.

THE KING has granted to Dr. Cyril Goodman His Majesty's Royal licence and authority to accept and to wear the Insignia of the Third Class of the Imperial Ottoman Order of the Medjidieh, conferred upon him by His Highness the Khedive of Egypt, in recognition of his valuable services to the Egyptian Government.

MEETINGS of the Central Midwives Board were held on May 7th, 12th, and 14th. The drafting of the rules under Section 31 of the Midwives Act, 1902, was completed and the secretary was instructed to forward a copy to the Privy Council for its approval, together with some draft "Suggestions to County Councils."

THE forty-third annual dinner of King's College, London, will be held at the Holborn Restaurant, on Monday, June 22nd, the Bishop of Exeter in the chair. All communications should be addressed to Mr. John Chapman, honorary secretary of the committee.

THE annual conversazione of the Medical Society of London was held on May 18th, Mr. A. Pearce Gould, the President, being in the chair. The oration was delivered by Sir William H. Bennett, K.C.V.O., and is published in full on p. 1423 of our present issue.

AMONGST the latest contributions received at the Bank of England for King Edward's Hospital Fund for London is the sum of £100 from the executors of the late Archbishop of Canterbury for annual subscription payable in 1902.

LEPROSY AND FISH-EATING.

LORD GEORGE HAMILTON, M.P., Secretary of State for India, presided over a meeting held on May 15th at the Medical Graduates' College and Polyclinic, Chenies-street, London, W.C., to hear an address by Mr. Jonathan Hutchinson on the results of his recent journey to India for the investigation of leprosy. In opening the proceedings he referred to the facts that leprosy had largely diminished in India during recent years and that the Commission on Leprosy which was appointed some years ago to inquire into the causation of the disease was not unanimous in its conclusions.

Mr. HUTCHINSON, of whose address the following is an abstract, said: My Lord, Ladies, and Gentlemen,—May I in the beginning state that there is in connection with this institution a standing committee for the investigation of leprosy and that that committee will meet on May 21st? I went to India with a very strong conviction which I have held for many years to the effect that the fish theory was the only one which would explain the prevalence and the disappearance of leprosy in various places. The commission to which your lordship has alluded was formed in 1890 and the members visited India. They did not neglect the investigation of the question of fish-eating and they returned a somewhat adverse verdict to it based on the fact that a certain number of lepers denied ever having eaten fish. My object in going to India was to see whether that objection could be got over. Since this commission visited India the fish hypothesis has assumed a somewhat modified aspect in that we fully recognise what is called commensal communication of leprosy—namely, that it is communicable by food from the leper's hands conveying the bacillus as it seems directly into the stomach from the leper's hands. That tends to explain exceptional cases in which a leper may deny that

he has ever eaten fish, for he may have acquired his leprosy by this commensal communication without eating fish. Again, there are innumerable different languages in India and the patients very often misunderstand what is said to them. If asked blankly, "Have you eaten fish?" they might suppose that the question probably was, "Have you eaten fish taken out of the stream?" They might have entirely forgotten the peculiar appearance that fish is apt to assume. Under certain dried conditions fish does assume very different appearances, and might very often not be recognised as fish. Here is a specimen of Indian fish preserved in such a way that any person might eat it without knowing that he was eating fish. Moreover the number of different names and words which are applied to dried and salt fish is very great. I found at several places that not only amongst the patients, but also amongst those who were their superintendents and caretakers, the idea of salt fish meant fish taken out of the salt sea. That was not what I meant; I meant any kind of fish preserved in salt. I very much wished to excite popular interest and inquiry into the subject. Therefore I wrote letters to the Indian medical journals and to the Indian press generally—that is to say, the non-medical press—to state what my opinions were with regard to leprosy and asking for information from all quarters. I was anxious to direct public attention to the dangers of eating bad fish and in that way to diminish the prevalence of leprosy, even though it might be without convincing any medical friends, or all of them at any rate. I addressed a letter to the presidents of all the medical colleges in India and I asked to be permitted to hold in their colleges a meeting to which all medical men in the district should be invited and before which I should expound my views. In every place the president of the medical college responded to my request and convened a meeting and at each of these I gave an address. In this way there was full opportunity for any criticism.

Various persons have said to me over and over again: "Leprosy disappears before civilisation; you need not trouble yourself about fish." My reply is that it recedes under many conditions of advancing civilisation, but not under all. For instance, there is plenty of leprosy in the West Indian Islands and in Spain and Portugal, while in Cape Colony it is steadily advancing, and if there are benefits to be derived from mere segregation Cape Colony ought to have felt them. The advocates of the fish theory allege broadly that the one factor of importance in the decline of leprosy is the disuse of badly preserved fish, and that the advance of civilisation acts by supplying different articles of food and thus diminishing the consumption of bad fish. I have often been asked why decomposing meat might not also be a cause of leprosy as well as decomposing fish and the reply is that there are many communities in which it has long been habitual to eat decomposing meat but in which no leprosy occurs. A Kaffir in Natal will eat the flesh of a dead ox, however advanced in decomposition it may be, but from time immemorial they had no leprosy in Natal until they had communication with Cape Colony, where the people eat salt fish, and that is within the last 60 years. The fish hypothesis assumes that really fresh fish and really well-preserved fish are both alike innocuous, and that cured or uncured fish in commencing decomposition may occasionally contain ingredients which become effective in the causation of leprosy. It is not the excessive use of fish, but the accidental reception of a specific ingredient in connexion with fish which determines the occurrence of the disease. The belief that leprosy is communicated by direct inheritance was entirely discredited by the evidence of the commission and there is very much other evidence which leads us to attach no importance to the belief that it is so communicated. The hypothesis of commensalism is very much more plausible. At Lahore I saw a baker who came amongst the general out-patients of the hospital for advice because he had got very sore hands and this was a great impediment to him in making bread. He was a leper unquestionably, and his hands had leper's sores upon them. We can see at once the possibility of contagion in that direction.

Having made these explanations, I now proceed to my argument, one point of which will be that there is no part of India in which the fish hypothesis is not possible. My journey was on the south-east coast, stopping at Madras, Calcutta, Darjeeling, and then across the whole north of Hindustan, going as far north as Lahore and passing down to Mysore and Bombay. Leprosy is scattered all over India; there is no place which is absolutely free from it, and it prevails to a very large extent excepting in a very few places. Tables have been prepared which show that five per 10,000 is the average prevalence of leprosy throughout the whole Indian population. There are no places in India where the fish hypothesis is impossible on account of there being no fish to eat. I will read you a brief quotation from the Imperial Gazetteer in India, by Sir William Hunter. He has written as follows: "All the waters of India, the sea, the rivers and the tanks, swarm with a great variety of fishes, which are caught in every conceivable way, and furnish a considerable proportion of the food of the poorer classes. They are eaten fresh or as nearly fresh as may be, for the art of curing them is not generally practised, owing to the exigencies of the salt monopoly." Two districts, however, were pointed out to me as being those in which the fish hypothesis would not apply on account of the great difficulty of obtaining fish and the smallness of its supply. The Chota Nagpur district was one. It is an inland district situated rather high up on hills in a sandy district and over and over again I was told in Calcutta by men who were well experienced and had lived in that neighbourhood that if I would go to Chota Nagpur I should find a district in which leprosy prevailed and fish was not obtainable. The other locality of which the same thing was asserted was the sub-Himalayan country in the north of Hindustan. I was assured that the people do not get fish there and yet they have leprosy. The Chota Nagpur district is some distance from the sea and has but few rivers. Its leper asylum is a little town. I went there, of course, and met the Rev. Dr. Harn, a medical doctor as well as a theological one, and I said that my object in coming was to question those of the lepers in the asylum—more than 500 in number—who said they had never eaten fish. Dr. Harn replied: "I have not one in the asylum who has not eaten fish. They have all eaten fish habitually." Dr. Harn's resident medical officer, who was more familiar with the lepers themselves than Dr. Harn himself, added to this: "Not eaten fish? Why, a great many of them think that fish has caused it. Numbers have left off eating fish in the belief that it had been the cause of the leprosy and made it worse." So much for Chota Nagpur. Why had my friends who said that there was no fish been so certain? They had travelled through the district rapidly in the dry season and they did not realise that in the rainy season every pool and river and brook was full of water and that there was plenty of fish to be got. In this leper asylum, of which it was asserted in Calcutta that none of the inmates had eaten fish, the fact was that fish was given regularly for meals. And at an adjacent asylum under the management of missionaries they said: "Yes, there is plenty of fish-eating here and we get our fish from Puralia, and we cannot conceive how anyone could have told you that." That must be taken as a type of a great many places where there is an elevated sandy district. I visited Puralia market and I saw the fish there. As to the sub-Himalayan districts, in talking with various sportsmen in the army and with people who had been frequently there and had themselves been accustomed to fish they said to me: "No fish in these sub-Himalayan districts? The streams all swarm with them. All the natives catch fish and there is plenty of fish." One gentleman said: "I go to fish there myself and I assure you the men are all very eager to eat fish, and they take the excess of any fish I catch and they salt it and keep it and then eat it in a condition in which I assure you I would not eat it." Dr. Hooker, who travelled several years in Sikkim (and that is in the Himalayan districts very nearly, a little to the west of Darjeeling), has stated: "On Kalapance Road (right under the foot of the Himalayan mountains) we passed crowds of market people laden with dried fish in a half putrid state which scented the air for many yards; they were chiefly carp caught and dried at the foot of the hills." I went to Darjeeling myself and there I found abundant fish in the market at a very considerable elevation above the sea and in full sight of the Himalaya mountains. The commission also reported that it was astonished at finding there was plenty of fish to be got in this district. I must now pass on to ask if there is any religious creed in India to which the suspicion of eating fish will not apply. The chief sects in India—I must not attempt detail because there are so many sects—are the Hindoo and the Mahomedan. The Mahomedan will eat anything except pork and one or two other white meats; for instance, I think he will not eat hare, but he

will eat fish freely. A Hindoo lives to a very large extent on rice. He would not eat any flesh of cows; that would violate a sacred rule, but he will eat almost any other kind of meat and he will eat fish, although he has a sentimental feeling that it is better and more virtuous to live on vegetable than on animal food. Certain forms of Brahminism fully allow of fish-eating and it is enjoined in the ritual that they shall eat fish at certain times. The very highest caste Brahmins will not eat animal food, but even amongst them the free use of animal food, including fish, is allowed up to the age of nine years, when the children assume the sacred thread, and afterwards they must not eat animal food. Again, the Jains form a very ancient sect, as old as Buddhism, and they are rigidly against the taking of life in any form. They go about with a little piece of muslin in front of their mouths to prevent insects getting into their mouths, not that they wish to protect themselves against the disagreeableness of the insects but they wish to protect the insect's life. Yet I think he would be a bold man who felt sure that no Jain ever ate fish. Hindoo sentiment with regard to fish may be said to be somewhat thus: That every Hindoo would prefer to say that he had not eaten fish, and if you go to a leper asylum to question them as to whether they have done so, it is very much as if you should institute an inquiry as to spirit-drinking in an English asylum. Therefore, if you ask Hindoos in a leper asylum as to fish-eating you must expect various replies, according to the moral courage of the man and according to what he thinks you want him to say. Whilst I was at Calcutta I received a postcard stating that if I would go to a certain asylum in the North of the Punjab district (Nicodar) I should find an asylum containing 100 persons not one of whom had ever tasted dried fish. I consulted the Viceroy about the matter and he very kindly sent a telegram asking that I should be supplied with full information. The resident medical officer therefore prepared a full statement, giving the names of all the lepers in the establishment, stating their age, sex, whether they had relatives who had leprosy, and giving one column, which was the most important of all, headed, "Have you ever eaten fish?" Now, in this schedule which was presented to me when I arrived at the asylum there were 40 men put down as not having eaten fish. So I thought that I must give up the fish theory altogether if this could be substantiated. I therefore proceeded to question the inmates individually. The first man who was brought before me firmly and persistently avowed that he had never eaten fish. He admitted that his father and mother ate fish habitually and that there was plenty of fish in his village, that his brothers and sisters ate fish, but that he had never tasted it because he did not like it. I then asked the resident medical officer to let me see another, but he replied: "There is not another, they all say they eat fish." That was the fact, there was not another man to be produced to say that he had not eaten fish. This, however, did not apply to the women. A woman who has said a thing will stick to it and all these women declared that they had never eaten fish. Therefore it was quite possible that in all of them it was a matter of commmensal contagion. At Bombay I was supplied with a report of the particulars of the Bombay Leper Asylum, the Matunga Asylum, and in this report among the columns showing the religion or race to which the patients belonged there was a column headed "Salsette Christians," a term which simply means the Christians living in the island of Salsette, an island close to Bombay and a great fishing centre. The Salsette Christians are Roman Catholic Christians. They were converted in the days of the Portuguese possession by the Portuguese Jesuits and they have continued ever since as a sect. The Bombay Leper Asylum receives patients from all parts of the Presidency without any selection and it has 500 inmates. A great number of them are Hindoos, the Hindoos being in superior numbers there, but the Salsette Christians in the asylum were very much in excess of their ratio to the population. The Calcutta asylum, the Madras asylum, and the asylum at Tantaran all show just the same sort of thing—an enormous preponderance of Christians. Of course there is a fallacy there, as there is a fallacy in all statistics, that inmates of the asylums may not represent the prevalence of leprosy in the community, but it is perfectly fair to take the records of the asylums as some basis for estimation of the presence of leprosy in the whole of the population. Let it not be suggested that there is anything in the habits of a converted native which tends to degradation. The change which native Christians experience so far as leprosy is concerned is, I am convinced, simply one of diet. In the case of all of them the race prejudice against fish is removed and in the case of the Roman Catholics it is replaced by a sort of compulsion to eat it. Having thus reviewed the evidence which I have accumulated in support of my theory concerning the causation of leprosy I may add that in my opinion the removal of the salt tax will be an immense boon to the community in various ways and that it will tend to prevent the prevalence of the disease.

Sir WILLIAM H. BROADBENT moved a vote of thanks to Lord George Hamilton for presiding. This was seconded by Dr. C. THEODORE WILLIAMS and carried.

Lord GEORGE HAMILTON admitted that the salt tax was heavy and pointed out that it must remain until some other source of revenue could be found. Though the tax had been reduced he believed that the extra consumption which the reduction would lead to would prevent any loss in the revenue. The heavy salt tax had, in his opinion, restricted fish-curing but he had not previously realised that there was any connexion between a heavy salt tax and the prevalence of leprosy.

The proposed discussion was adjourned to the next meeting of the Standing Committee of the Polyclinic on Leprosy.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held on May 14th, Sir WILLIAM SELBY CHURCH, Bart., K.C.B., the President, being in the chair. Dr. W. H. Allchin acted as registrar in the absence through illness of Dr. E. Liveing.

The following gentlemen who had been elected at the previous Comitia were admitted as Fellows of the College: Dr. A. P. Beddard, Dr. E. Cautley, Dr. J. S. Collier, Dr. B. E. Dawson, Dr. E. Goodall, Dr. W. Gordon, Dr. A. M. Gossage, Dr. L. Humphry, Dr. R. Hutchison, Dr. J. A. Lindsay, Dr. A. Morison, Dr. F. J. Poynton, Dr. G. A. Sutherland, Dr. W. W. H. Tate, and Dr. StClair Thomson.

The Registrar (Dr. ALLCHIN) proposed, and the Second Censor (Dr. G. V. POORE) seconded, the enactment for the first time of the following by-law:—

That Dr. George Francis Angelo Harris, elected a Fellow on April 30th, being resident in India, be admitted *in absentiâ*, any by-law to the contrary notwithstanding.

A communication was received from the Liverpool University Committee requesting the College to appoint a representative to be a member of the court or supreme governing body of the University.

The PRESIDENT moved from the chair that the request be granted and the proposal having been accepted by the College nominated the treasurer (Sir Dyce Duckworth) as the representative of the College.

Sir DYCE DUCKWORTH consented to act.

Dr. P. H. PYE-SMITH, the representative of the College at the recent International Congress of Medicine held at Madrid, presented his report and a vote of thanks was given to him for his services.

The PRESIDENT then dissolved the Comitia.

MEDICINE AND THE LAW.

The Medical Profession and Proprietary Medicines.

A VERY curious dispute has been ventilated at Liverpool in the court presided over by Sir Samuel Hall, K.C., vice-chancellor of the County Palatine of Lancaster. A firm of wholesale druggists sued a manager in their employment for moneys which they alleged that they had paid to him for the benefit of the Liverpool Throat Hospital, of which he had been for some years honorary treasurer. The moneys arose from royalties upon certain throat pastilles prepared by the druggists according to a formula of Mr. John Bark who, being a member of the staff of the hospital, had apparently handed the prescription to Mr. Jones, the honorary treasurer. The wholesale druggists arranged to produce and to sell the pastilles, paying a royalty of 6*d.* per pound to Mr. Jones, and the sales were such that the royalty in a single year amounted to £800. The agreement under which the payment of the

royalty was made formed the original subject of the dispute, the druggists (Messrs. Evans and Sons) alleging that they paid it to Mr. Jones as treasurer of the charity, while Mr. Jones contended that he accepted it as proprietor of the formula which he claimed to have received as a gift from Mr. Bark. It was found by the court on a previous occasion that Mr. Jones had received the money in his hands in a fiduciary capacity and the recent hearing was in consequence of the medical men connected with the hospital, of which some of them were apparently trustees, pointing out that they were unable to give their services to a charity deriving profits from the sale of a proprietary medicine. Considerable discussion appears to have taken place and an injunction was even sought against the medical men to restrain them from withdrawing, but ultimately a new scheme for the disposal of the fund was ordered to be drawn up with the consent of the Charity Commissioners and presumably the trustees who will eventually handle it will not be members of the medical profession. The report in the *Liverpool Post* of the proceedings upon the second occasion on which the matter came before the court does not afford a detailed account of several points which might be of interest to the medical profession. A good deal, however, would seem to have been said in the course of the discussion as to the importance of maintaining the secret of the prescription undivulged and the representative of the Attorney-General of the Duchy of Lancaster seems to have argued that medical men who were trustees for the charity were bound, in conformity with the contract under which the druggists made the pastilles, not to publish the formula. It would appear, therefore, that it was found that the druggists merely made up a prescription and sold it under a promise that as far as secrecy could give them a monopoly they alone should make the articles in question. This would be easier to understand than the proposition that Mr. Bark had or had ever claimed to have any proprietary right in a formula of his devising, or that any such alleged right had been transferred to Mr. Jones either as trustee or otherwise. The medical men connected with the hospital acted with obvious propriety.

Abortion and Murder or Manslaughter.

An abortionist was recently convicted on the Northern Circuit of manslaughter and sentenced to 15 years' penal servitude. The precise terms in which Mr. Justice Lawrance summed up the case to the jury are not yet fully reported, but he appears to some extent to have followed the summing up of Mr. Justice Bigham in *R. v.* Whitmarsh (62 Justice of the Peace, 711) and to have instructed the jury to the effect that if they should be of opinion that the prisoner could not as a reasonable man have expected death to result from his act they might find a verdict of manslaughter. A jury is prone to avail itself in such a case of any loophole which will enable it to acquit upon the capital charge. It is worthy of note that if Mr. Justice Bigham's statement of the law is correct he qualified it with reference to the case before him by others which clearly intimated to the jury that it was their duty to convict of murder. He said, amplifying his other observations, "If they should be of opinion that the prisoner could not as a reasonable man have expected death to result from his acts they might find a verdict of manslaughter"; and in another passage, "If the prisoner as a reasonable man could see no possibility of death, then you can find a verdict of manslaughter," and he spoke of the extreme remoteness of the possibility which would justify the milder verdict. In this case the jury found Whitmarsh guilty of murder.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on May 14th, Sir HENRY G. HOWSE, the President, being in the chair.

Sir Francis Henry Lovell, C.M.G., was introduced, signed the by-laws, and was admitted a Fellow of the College.

Mr. Thomas Crisp English was introduced and the President handed him a cheque for the amount of the Jacksonian prize for the past year together with a document declaratory of the award.

Mr. Louis Bathe Rawling was introduced and the President handed him a cheque together with a certificate recording the Council's appreciation of the merits of his dissertation for the Jacksonian prize.

Mr. Kenneth Weldon Goadby was introduced and the President handed him a cheque for the amount of the John Tomes prize together with a document declaratory of the award.

It was resolved that diplomas of Membership should be issued to 109 successful candidates.

As recommended by the Court of Examiners an alteration was made in the regulations for candidates for the Diploma of Fellow so that Paragraph 7, Subsection II., Section III. shall read:—

7. Of having attended a course of lectures on biology at a recognised medical school or of having passed an examination in this subject at a recognised university.

It was resolved to issue diplomas of the Licence in Dental Surgery to 54 successful candidates.

A letter was read from the London County Council asking the College to suggest the names of well-qualified pathologists to make post-mortem examinations and to give evidence in special inquest cases. In reply it was resolved to send the following letter:—

The Council of the Royal College of Surgeons of England, while agreeing with the London County Council that it is desirable that post-mortem examinations in inquest cases of a special nature should be intrusted to specially skilled pathologists regret that they are not in a position to assist the London County Council by suggesting the names of well-qualified pathologists with experience of a medico-legal nature to make post-mortem examinations and to give evidence in such cases. The Council of the Royal College of Surgeons of England would desire to point out to the London County Council the inadequacy, in their opinion, of the fee of two guineas for the services required from medical men so highly accomplished as skilled pathologists.

The President was requested to communicate with a Member of the College to whose circular attention had been drawn.

A letter was read from Mr. G. H. Makins and Mr. F. C. Abbott, honorary secretaries to the MacCormac Memorial Committee, stating that a marble bust of the late Sir William MacCormac had been executed by Mr. Alfred Drury, A.R.A., for St. Thomas's Hospital and that the subscribers desired to offer a replica of the bust to the Royal College of Surgeons of England in commemoration of Sir William MacCormac's long and honourable connexion with the College. The offer was accepted with the best thanks of the Council to the subscribers.

A letter was read from Mr. Edmund Owen reporting his attendance as the representative of the College at the Fourteenth International Congress of Medicine held at Madrid in April last. A vote of thanks was given to Mr. Owen for his services.

A letter was read from the secretary to the Liverpool University Committee stating that the Lords of the Privy Council had advised His Majesty to grant a charter incorporating a university in Liverpool and asking the Council of the Royal College of Surgeons of England to appoint a Member of the Court (the supreme governing body of the University) as provided in the charter as drafted for the approval of His Majesty.

The PRESIDENT stated that a vacancy on the Court of Examiners occasioned by the retirement of Mr. R. J. Godlee would be filled up at the ordinary meeting of the Council in June.

A committee was appointed, in response to a request of the Royal College of Physicians of London, to confer with representatives of that College as to any alterations that may be desirable in the regulations for the First Conjoint Examination.

A letter was read from the General Medical Council, accompanied by a copy of the report of the visitors on the final examinations of the Conjoint Board. The report was referred to the committee of management to consider and to report.

PREVENTION OF CONSUMPTION AND OTHER FORMS OF TUBERCULOSIS.

STAFFORDSHIRE.

AT a meeting of the sanitary committee of the Staffordshire county council held last February it was resolved—

That the county medical officer of health be instructed to report upon the need in this county for the provision of a sanatorium or sanatoria for the treatment of phthisis and as to the steps, if any, which the county council may advantageously take in order to further or promote a scheme having such an object in view.

Dr. George Reid, the county medical officer of health, has therefore now presented a report, in the early part of which

he states that in Staffordshire, excluding county boroughs, the mean annual number of deaths from tuberculosis during the past ten years was 805 and as the mean duration of the illness when fatal is from two to three years there were probably at least 2000 patients in the administrative county. Evidence of the preventable nature of the disease was afforded by the fact that during the last 40 years and coincidently with the growth of sanitation the death-rate from this cause in England and Wales had decreased greatly. In the period 1861-65 the tuberculous deaths per million persons living were 2526, but in the period 1881-85 the proportion fell to 1830 and in 1891-95 it further fell to 1461. What was known as the open-air treatment had been practised on a considerable scale for a good many years in Germany and some three or four years ago the movement extended to this country. Dr. Reid here quoted a table which was included in the appendix to Dr. A. Latham's prize essay and which will be found in THE LANCET of Jan. 3rd, 1903, p. 30, col. 1. He then described the details of a scheme which had been under consideration by the county council of the West Riding of Yorkshire, according to which for a hospital to accommodate 50 patients (35 men and 15 women) the initial establishment cost would be £26,100 and the annual expenditure would be £3511.

If a county council desired to take part in the providing of a hospital there were several methods which it might adopt. For example, its machinery might be used merely in an initial capacity with the view of obtaining what was wanted by the help of philanthropic persons, as was done in Worcestershire. Or it might endeavour to induce local authorities to unite for the purpose, with or without a promise of financial help from the county funds. On the other hand, the council might undertake the whole responsibility, structural, administrative, and household, and provide the necessary funds from the county rate. Dr. Reid did not advocate any of these arrangements. He, however, strongly recommended a scheme which he had outlined a considerable time ago and which was similar to the system afterwards approved of by the West Riding county council By such a scheme every authority in the administrative county, through the county rate, would contribute *pro rata* to the cost of the hospital and each authority might make use of the hospital on guaranteeing the payment of, say, £1 per patient per week, or possibly less. It would rest with the local authority as to whether it would find the whole of this amount, or whether part or the whole of it might be charged to the patient or subscribed by charitable persons, and in all probability funds would also be forthcoming from sick clubs.

It was desirable on economical grounds that the whole county should be served by one institution. The ideal site for the purpose would be on the south-western slope of a hill where the subsoil was dry and porous. The majority of the patients should have separate sleeping-rooms, but there might be one or two rooms with two or three beds in each. Whether the structure should be of a permanent or temporary character was a question about which there was much difference of opinion. Dr. Reid considered that a hospital containing 50 beds and standing on a site of 30 acres might be built and furnished for a capital expenditure of £19,900 and that the annual expenditure might be put at £2407. To this estimate there would have to be added the sum of £1 per bed per week (£2600 a year), for which it had been already suggested that the local authorities should be responsible. He was of opinion that the value of sanatoriums in the modern treatment of pulmonary tuberculosis was not merely curative for they were also educational centres where patients were taught the simple rules by which their recovery might be promoted and by which the risk of infection being conveyed to others might be avoided. To accomplish this much a residence in the institution of from six to eight weeks would probably suffice and in that way an institution of 50 beds would be capable of receiving 300 patients annually.

MANCHESTER.

At the annual meeting of the friends of the Manchester Hospital for Consumption good progress with the building of the Crossley Sanatorium at Delamere was reported. It was also stated that the first £50,000 of the £100,000 wanted as an endowment had been reached. One or two points of interest came out in the course of the proceedings. The large proportion of "housewives" among the 11,300 outpatients was referred to as showing the pernicious effects of in-door employments and Mr. Crossley went on to speak of one of the important, but as yet unsolved, problems—namely, the future of the patients after leaving hospital and the finding of suitable employment. One scheme he had dimly in his mind was to send them across the sea, for he was told that in Tasmania "land was cheap and consumption unknown." There was an urgent necessity for continuing the open-air life that had led to cure, but in the case of town populations the problem seemed to be almost insoluble.

THE ROYAL SOCIETY'S CONVERSAZIONE.

SIR WILLIAM CROOKES'S DEMONSTRATION OF THE EMANATIONS OF RADIUM.

THE contributions to science during the past year have been of more than ordinary interest and the result has been a more than usually attractive exhibition in the rooms of the Royal Society on the occasion of the annual conversazione which was held on May 15th. The fact that the greater part of the council room, duly darkened, was allotted to Sir William Crookes made it fairly certain that this distinguished chemist was taking the opportunity of demonstrating the properties of that mysterious substance radium. The exhibit attracted the greatest interest and in spite of an alteration having been made this year for the first time in the day of holding the conversazione there was a very large and brilliant gathering present, the company being received by the President, Sir William Huggins, K.C.B.

In reviewing in our columns the work contributed by scientific men during the past few years we have frequently had occasion to direct our readers' attention to the remarkable results promised by the study of that property of certain elements known as radio-activity of which radium is now the most remarkable example. We may regard Sir William Crookes's recent statement as the most authoritative announcement upon this subject and the following is his striking description given to the Fellows of the Royal Society and their friends during the demonstration. The emanations from radium, he says, are of three kinds, one set is the same as the cathode stream now identified with free electrons—atoms of electricity projected into space apart from gross matter—identical with matter in the fourth or ultragaseous state, Kelvin's satellites, Thomson's corpuscles or particles, disembodied ionic charges retaining individuality and identity. Electrons are deviable in a magnetic field and are shot from radium with a velocity of about two-thirds that of light, but are gradually obstructed by collisions with air atoms. Another set of emanations from radium are not affected by an ordinarily powerful magnetic field, and are incapable of passing through very thin material obstructions. They have about 1000 times the energy radiated by the deflectable emanations. They render air a conductor and act strongly on a photographic plate. These are the positively electrified atoms. Their mass is enormous in comparison with that of the electrons. A third kind of emanation is also produced by radium besides the highly penetrating rays which are deflected by a magnet: there are other very penetrating rays which are not at all affected by magnetism. These always accompany the other emanations and are Roentgen rays—ether vibrations—produced as secondary phenomena by the sudden arrest of velocity of the electrons by solid matter, producing a series of Stokesian 'pulses' or explosive ether waves shot into space. These rays chiefly affect a barium platinocyanide screen and only in a much feebler degree zinc sulphide. Both Roentgen rays and electrons act on a photographic plate and produce images of metal and other substances inclosed in wood and leather and shadows of bodies on a barium platinocyanide screen. Electrons are much less penetrating than Roentgen rays and will not, for instance, show easily the bones of the hand. A photograph of a closed case of instruments is taken by the radium emanations in three days and one of the same case by Roentgen rays in three minutes. The resemblance between the two pictures is slight and the difference great. The actions of these emanations on phosphorescent screens is different. The deflectable emanations affect a screen of barium platinocyanide strongly, but one of Sidot's zinc sulphide only slightly. On the other hand, the heavy, massive, non-deflectable positive atoms affect the zinc sulphide screen strongly and the barium platinocyanide screen in a much less degree.

If a solid piece of radium nitrate is brought near the screen and the surface is examined with a pocket lens magnifying about 20 diameters scintillating spots are seen to be sparsely scattered over the surface. On bringing the radium nearer the screen the scintillations become more numerous and bright, until when close together the flashes follow each other so quickly that the surface looks like a turbulent luminous sea. It seems probable that in these phenomena we are actually witnessing the bombardment of the screen by the positive atoms hurled off by radium with a velocity of the order of that of light; each scintillation rendering visible an impact on the screen and becoming apparent only by the enormous extent of lateral disturbance produced by its impact. In the same way, individual drops of rain falling on a still pool are not seen as such, except by reason of the splash they make on impact, producing ripples and waves in ever-widening circles. A convenient way to show these scintillations is to fit the blende screen at the end of a brass tube with a speck of radium salt in front of it and about a millimetre off and to have a lens at the other end. Focussing, which must be accurately done to see the best effects, is accomplished by drawing the lens tube in or out. Sir William Crookes proposes to call the little instrument designed for this purpose the "Spinthariscope," from the Greek word *σπινθαρίς*, a scintillation.

A very interesting experiment was shown by the Rev. F. J. Jervis Smith demonstrating the effects of a high-pressure spark gap used in connexion with an inductor of the Tesla type and also in connexion with a radiator of Hertzian waves. The discharge at the terminals is augmented when the air or gas in the spark-gap globe is subjected to pressure by means of a pump. The spark readily perforates and cuts plate-glass placed in oil with conductors on each side, but intense as the spark is it has very little physiological effect—that is to say, only a pricking sensation is experienced when the spark passes between the terminal and the knuckle of the hand. A simple device for controlling and regulating spark discharges was exhibited by Mr. Alfred Williams. In his experiments he showed how by the use of a shunt or of plates of high resistance the field in a spark-gap can be so influenced that the discharges are made more regular and placed under better control for therapeutic and wireless telegraphy purposes. Sir Oliver Lodge and Dr. Alexander Muirhead demonstrated the working of their new coherer as applied to wireless telegraphy. The coherer is automatic and consists of a steel wheel which rotates so that its edge touches a pool of mercury through a film of oil. An excellent method for the detection and estimation of minute quantities of arsenic in beer and brewing materials was demonstrated by Professor Thorpe of the Government Laboratory and his assistants. The apparatus consists of an electrolytic cell in which the hydrogen is generated from acidulated water to which has been added the suspected beer by means of the electric current. A little amyl alcohol is added to prevent frothing. The gas is subsequently dried and passed through a heated glass tube when the arsenic is deposited.

Dr. Allan Macfadyen and Mr. Sydney Rowland demonstrated the methods which they have used for the past four years in studying the intracellular toxins and ferments of bacteria and other cells. From these and other researches it has become evident that there exists a distinct class of toxins and ferments which are contained and operate within the cell or bacterium in contra-distinction to the now well-known class of toxins which are extracellular—i.e., extruded during life from the cell into the surrounding medium. To this latter class belongs the diphtheria toxin which has been so successfully used in the preparation of diphtheria antitoxin. The practical utility of investigating these intracellular toxins has already become evident in the preparation from the intracellular toxin of the typhoid bacillus of a serum having antitoxic value as regards this toxin. The method employed in obtaining these intracellular toxins consists in mechanically breaking up the bacteria when in the *brittle* condition produced by immersion in liquid air. The use of this reagent has the additional advantage of preventing chemical change during the process. In short, the process may be described as producing a *devitalised toxin* while the bacillus is in a condition of *chemical anæsthesia*. The apparatus concerned in this interesting and important research was shown.

Professor F. D. Trouton showed an ingenious arrangement by which the hygrometric state of the air could be gravimetrically recorded directly. When the moisture in the air varies or the temperature changes the weight absorbed by a piece of flannel changes in proportion to the hygrometric state of the air but not to the amount of moisture present. This alteration in weight can be shown by the movement of the arm of a balance from which the flannel is suspended and thus the hygrometric variations may be recorded. The method of preparing chloroformed calf lymph was demonstrated by Dr. Alan B. Green. Sterile air charged with chloroform vapour is passed through a watery emulsion of calf vaccine. When saturation is complete all excess of chloroform escapes automatically from the emulsion so that the vaccine is never in contact with a stronger solution of chloroform than 1 in 200. The value of this method has been practically demonstrated. The use of vaccines freed from all extraneous germs and after all the traces of chloroform have been removed has given results for vaccination and revaccination of a very satisfactory kind. By this method vaccine free from extraneous bacteria can be distributed for use, it is stated, within 24 hours of its collection from the calf. This fact is of the utmost importance should the demand for vaccine, as during the occurrence of small-pox epidemics, be very great. Dr. W. J. Russell, exhibited a number of photographs of dust deposits formed upon glass plates which were left at rest for a few minutes at a slightly higher temperature than that of the surrounding atmosphere. The dust took many beautiful patterns chiefly of the double diagonal type Speaking of dust mention should be made of the samples of volcanic dusts exhibited by the West Indies Volcanoes Committee of the Royal Society. There was a very interesting collection of relics and photographs on view illustrating the late eruptions in St. Vincent and Martinique. Mr. S. G. Shattock showed an interesting example of true (glandular) hermaphroditism in a domestic fowl. The comb and wattles of the bird shown were male, while the tail and plumage in general were female. The section showed a left oviduct and two reproductive glands. The right lesser gland exhibited testicular tubuli, some of which contained spermatozoa; the left gland contained inactive testicular tubuli and an ovum. Dr. Aldo Castellani exhibited a specimen of trypanosoma found by him in the cerebro-spinal fluid from patients suffering from sleeping sickness in Uganda. In the committee-room a demonstration was given of the new incandescent oil burner designed by Mr. T. Matthews for use in the Trinity House lighthouse service. The burner is automatic in action. The intensity of the triple mantle burner is 2700 candles and the consumption of oil is three pints per hour. The light is very intense and is said to penetrate fog for some distance.

Demonstrations were given by means of the electric lantern during the evening by Sir Benjamin Baker who exhibited a series of lantern slides illustrative of the Nile Dam works. Professor Harold B. Dixon also used the lantern for projecting on the screen his interesting photographs of explosion flames taken on very rapidly moving films. The genesis of the explosion waves as the flame travelled from the point of ignition and the influence of reflexions from the ends of the tube could readily be seen. Photographs of sound waves moving through the explosion flame were also shown, the movement enabling the approximate temperature of the flame to be calculated.

THE ARMY MEDICAL SERVICES.

WE are authorised to state the following facts for the information of intending candidates for the Royal Army Medical Corps.

The Army Medical Service, under the Royal Warrant of 1902, gives greatly increased advantages to officers of the Royal Army Medical Corps and offers an attractive career to young medical men.

The provisions of the new Warrant insure:—

1. Sufficient pay to enable the officer to support himself from the date of entering the service. (See Appendix, Schedule of Pay.)
2. Increased rates of pay to officers in charge of hospitals, or when selected for specialist appointments.
3. Opportunities of professional improvement by work in the Royal Army Medical College, by the study of disease in foreign countries and by original research.
4. Advancement on account of professional ability and merit and not only by order of seniority.

5. Permission to retire at the end of three years' service and to join the reserve of the corps, receiving a small annual honorarium. Permission may be given to officers of this reserve to rejoin the corps within a certain period.
6. The certainty of obtaining a gratuity of £1000 on retirement after nine years' service and of obtaining a *pension* of £1 a day on retirement after 20 years' service, with increased rates of pension after longer terms. Pensions at higher rates are paid to officers who retire on account of injuries received when on duty.

Pensions are granted to the widows and children of officers.

THE ENTRANCE EXAMINATION.

A competitive examination for commissions in the Royal Army Medical Corps takes place twice a year, in January and July. The number of vacancies is announced before each examination, and varies from 30 to 40 at each competition. After passing the ordinary physical examination for entrance into the army, and being accepted by the Advisory Board for Army Medical Services, the candidate comes before the Board of Examiners for the entrance examination.

The examination is conducted so as to test the candidates' practical knowledge and experience in general medicine and surgery. It is expected that candidates with a good knowledge of their profession will succeed in passing this test without the necessity for special reading in the earlier subjects of the medical curriculum. The written part of the examination consists of commentaries on cases set by the examiners and of reports on patients examined by the candidates. The *viva voce* part of the examination is of a clinical character, and includes the subjects of pathology and surgical anatomy only to the extent required in a general examination on practical medicine and surgery.

The Board of Examiners consists of eight physicians and surgeons appointed from the hospitals and medical schools of the United Kingdom.

On obtaining a place the candidate is gazetted as a lieutenant on probation and passes into the Royal Army Medical College in London where he receives a two months' course of instruction from the professors of the College in hygiene, bacteriology, military surgery, and military medical administration. He resides in the College and has the advantage of associating with other officers of the corps. At the end of this course he is examined in the subjects of hygiene and bacteriology and then proceeds to Aldershot where, at the training school of the Royal Army Medical Corps Depôt, he receives a further course of instructi n for a period of three months on the military part of his future duties, such as routine medical duties in military hospitals and barracks, the drills and exercises of the corps, the practical work of field ambulances, military law, &c.

The sum of the marks gained at the entrance examination, the examination at the Royal Army Medical College and at the Aldershot examination, determines his seniority in the Army List. On qualifying at these examinations his commission as Lieutenant in the corps is now confirmed.

The number of marks obtainable in the three examinations is as follows :—

	Maximum marks.
1. The entrance examination by the Board of Examiners	800
2. Examination at the Royal Army Medical College	100
3. Examination at Aldershot	100

APPOINTMENTS IN CIVIL HOSPITALS.

If officers, at the time of entering the corps, hold, or have an immediate prospect of holding, resident appointments at any one of the large general hospitals recognised by the Advisory Board, they may be "seconded" for the space of one year while holding such posts. They have thus the privilege of retaining their places in the Army List and the time of tenure of the appointment is counted as service towards promotion and pension, but they do not receive Army pay.

FOREIGN SERVICE.

On leaving Aldershot the Lieutenant is appointed to a military hospital, and in about a year from the date of joining he will proceed to India or to one of the colonies and will probably be attached to a battalion, regiment, or other unit. This opportunity of proceeding abroad is usually regarded as one of the most pleasant episodes in the medical officer's career. He sees fresh countries and life under new conditions and has the opportunity of securing the confidence of his military charge and of gaining experience in practice. In addition to the experience afforded by the military hospitals under his immediate care there are in India, and in most of the colonies, civil hospitals where facilities for observation are never denied him and where he can study the diseases peculiar to the countries in which he may serve. In the same way as an officer of the Indian Medical Service he is permitted to engage in civil practice, which, in some stations, affords him a considerable increase of income. Such private practice is also permitted in colonial stations.

Until recently there was much well-grounded complaint of the inadequacy of the pay of the British medical officer in India, but with the augmentation sanctioned by recent regulations this ground of complaint no longer exists. The pay of the young officer goes further abroad than it does at home, and in India and elsewhere it is sufficient to enable him to live comfortably and to take part in the sports and amusements of his brother officers.

PROMOTION TO CAPTAIN.

At the end of three and a half years after joining the Royal Army Military College the officer, after passing a practical examination in the military duties of his rank, is promoted to be Captain. On completing his tour of foreign service of three or five years, according to the period of his station, he returns home and during his home service is appointed to the Royal Army Medical College for a course of six months' study. This is largely occupied in attendance on the clinical practice of various London hospitals, under selected clinical teachers in medicine, surgery, and in certain special subjects.

The teachers for the year 1903 are the following :—

Medicine	Dr. Sharkey. Dr. Hale White.
Surgery	Mr. Pearce Gould. Mr. Stanley Boyd.
Dental Surgery	Mr. Badcock.
Dermatology	Dr. Colcott Fox.
Laryngology	Mr. Steward.
Midwifery and Gynæcology	Dr. Dakin.
Ophthalmology	Mr. Treacher Collins.
Otology	Mr Cheatle.
Pædiatrics	Dr. Garrod.
Psychological Medicine ...	Dr. Craig.
Specific Fevers	Dr. Foord Caiger.
Bacteriology	Major Leishman, R.A.M.C., Professor of Pathology, R.A.M. College. Assistant Professor, Captain Harvey.
Skiagraphy	Surgeon-General Stevenson, C.B., Professor of Military Surgery, R.A.M. College.
Advanced Operative Surgery	Surgeon-General Stevenson, C.B., Professor of Military Surgery, R.A.M. College.
Hygiene	Major R. H Firth, R.A.M.C., Professor of Hygiene, R.A.M. College. Assistant Professor, Captain Fowler, R.A.M.C.
Pathology and Tropical Diseases	Major Leishman, R.A.M.C. Captain Harvey, R.A.M.C.

PROMOTION TO MAJOR.

At the end of this course of instruction the Captain is ready for his examination for promotion to the rank of Major. This examination, like the entrance examination, is of as practical a character as possible and includes general medicine and surgery, bacteriology and hygiene, and a special subject chosen by the candidate. This examination forms a very important event in his career in the army. An officer who shows special proficiency at this examination may gain acceleration of promotion to the extent of three months, six months, 12 months, or 18 months, and those who have shown aptitude in the special subjects chosen in their examination may be subsequently selected to hold specialist

appointments at various army centres, receiving increased pay at the rate of about £45 per annum.

The officer, after from 10½ to 12 years' service from the date of entering the Royal Army Medical College, and on qualifying at this examination, is promoted to the rank of Major and various important and responsible appointments become open to him. After completing a period of home service he proceeds on his second tour of service abroad and will be in all probability posted to a position of responsibility, when his pay and allowances will amply meet all his needs.

PROMOTION TO LIEUTENANT-COLONEL.

After the fifteenth year of service the officer proceeds to his last examination, which deals with those purely military subjects, with which he has gradually become familiar during his career. This examination is also of a practical character and is intended to ascertain his administrative ability in view of further promotion.

After passing this examination the officer becomes eligible for selection to the rank of Lieutenant-Colonel. Officers of this standing occupy prominent positions in the army, they command the depôt at Aldershot, they form the staff of the Director-General, they have the charge of large hospitals, and may become entitled to a very considerable increase in pay, amounting in some cases to as much as £180 a year. After 20 years' total service the officer may retire upon a pension of £1 per diem.

PROMOTION TO THE HIGHER GRADE OF LIEUTENANT-COLONEL AND COLONEL.

Lieutenant-Colonels are on selection advanced to a higher rate of pay and from this higher grade of Lieutenant-Colonels are selected the Colonels of the corps. Colonels are promoted on selection to the rank of Surgeon-General and from the Surgeon-Generals the Director-General is appointed.

BREVET PROMOTION FOR DISTINGUISHED SERVICE.

Brevet promotion, which implies advancement in army rank as distinguished from regimental rank, as in other branches of the service, is now granted to medical officers for distinguished service in the field and for distinguished service other than in the field, such as distinction in original investigation and research.

OFFICERS ELIGIBLE FOR SPECIAL HONOURABLE RECOGNITION.

The officers of the Royal Army Medical Corps are eligible for military honours and rewards at the hand of the Sovereign and there are six honorary physicians and six honorary surgeons to the King appointed from among the officers of the Royal Army Medical Corps.

It is worthy of notice that a large proportion of Victoria Crosses have been awarded to medical officers for valour.

APPENDIX.

EXPENSES, SPECIAL ADVANTAGES, PAY.

The expenses of all officers have been considerably reduced as the result of recent legislation, by which the Government provides furniture in their quarters at a low rent, gives them a free field service outfit, &c.

The medical officer has, in common with all other officers of the army, the following advantages—viz., the occupation of Government quarters, or allowance in lieu thereof; military precedence, according to seniority; horse allowance when mounted; the employment of soldiers as servants; honorary membership of messes, &c.

In large stations such as Aldershot, Netley, London, Rawal Pindi, Lucknow, &c., there are messes of the Royal Army Medical Corps.

PAY IN INDIA.

	Rupees per mensem.
Lieutenants	420
Captains	450
After seven years' service	530
,, ten ,, ,,	650
Majors	789
After 15 years' service	826
Lieutenant-Colonels	1100
Specially selected	1200
Charge pay, from 60 rupees to 240 rupees per mensem, according to size of hospital.	
Specialist pay	60

Captains and Majors, after qualifying in special subjects, if appointed specialists draw 2*s.* 6*d.* a day (£45 12*s.* 6*d.* per annum, 60 rupees per mensem in India) in addition to pay.

Charge pay up to £180 per annum (240 rupees per mensem in India) according to number of beds is given to officers in charge of military hospitals.

The following are examples of the emoluments which may be obtained by medical officers of various ranks:—

Captain (say of ten years' total service)—

	£	*s.*	*d.*
Pay and allowances	474	19	11
Specialist pay	45	12	6
Charge pay	45	12	6
	566	4	11

Major (say of 10½ years' total service)—

	£	*s.*	*d.*
Pay and allowances	586	4	3
Specialist pay	45	12	6
Charge pay from £91 5*s.* to	182	10	0
	814	6	9

Lieutenant-Colonel (say of 18½ years' total service)—

	£	*s.*	*d.*
Pay and allowances	713	19	3
Charge pay from £91 5*s.* to	182	10	0
	896	9	3

If commanding depôt Royal Army Medical Corps extra pay of £92 per annum is given.

PAY AND ALLOWANCES OF MEDICAL OFFICERS AT HOME.

Rank.	Pay. Per diem.	Pay. Per annum.	Servant allowance. Per diem.	Servant allowance. Per annum.	Lodging allowance. Per diem.	Lodging allowance. Per annum.	Fuel and light allowance. Per diem.	Fuel and light allowance. Per annum.	Forage and stabling allowances. Per diem.	Forage and stabling allowances. Per annum.	Total per annum.
	£ *s.* *d.*	£ *s.* *d.*	*s.* *d.*	£ *s.* *d.*	*s.* *d.*	£ *s.* *d.*	*s.* *d.* (av'r'ge)	£ *s.* *d.*	*s.* *d.*	£ *s.* *d.*	£ *s.* *d.*
Lieutenant and Lieutenant on probation	0 14 0	255 10 0	1 0	18 5 0	2 3	41 1 3	0 8¾	13 0 0	—	—	327 16 3
Captain	0 15 6	282 17 6	1 0	18 5 0	3 0	54 15 0	1 0½	18 14 11	—	—	374 12 5
And after seven years' full pay	0 17 0	310 5 0	1 0	18 5 0	3 0	54 15 0	1 0½	18 14 11	—	—	401 19 11
And after ten years' full pay	1 1 0	383 5 0	1 0	18 5 0	3 0	54 15 0	1 0½	18 14 11	—	—	474 19 11
Major	1 3 6	428 9 6	1 0	18 5 0	4 0	73 0 0	1 5½	26 10 11	2 2	39 10 10	586 4 3
Major after three years' service as such	1 6 0	474 10 0	1 0	18 5 0	4 0	73 0 0	1 5½	26 10 11	2 2	39 10 10	631 16 9
Lieutenant-Colonel	1 10 0	547 10 0	1 0	18 5 0	4 6	82 2 6	1 5½	26 10 11	2 2	39 10 10	713 19 3
Lieutenant-Colonel specially selected for increased pay after eight years' service abroad	1 15 0	638 15 0	1 0	18 5 0	4 6	82 2 6	1 5¼	26 10 11	2 2	39 10 10	805 4 3
Colonel	2 0 0	730 0 0	1 0	18 5 0	5 6	100 7 6	1 8¾	31 8 3	4 1	74 10 5	954 11 2
Surgeon-General	3 0 0	1095 0 0	2 0	36 10 0	11 0	200 15 0	2 3¼	42 1 1	6 0	109 10 0	1483 16 1

Lieutenant-Colonel (selected for higher rate of pay, say at 23 years' service)—

	£	s.	d.
Pay and allowances	805	4	3
Charge pay	182	10	0
	987	14	3

Professors at the Royal Army Medical College receive pay and allowances of rank, plus £200 per annum.

Assistant professors at the Royal Army Medical College receive pay and allowances of rank, plus £80 per annum.

Officers can retire at the following periods and obtain the several gratuities and pensions enumerated :—

Gratuity—

	£
After 9 years' service	1000
,, 10 ,, ...	1250
,, 15 ,, ...	1800
,, 18 ,, ...	2500

Pension—

Major or Lieutenant-Colonel—

	Per diem. £	s.	d.	Per annum. £	s.	d.
After 20 years' service	1	0	0	365	0	0
,, 25 ,, ...	1	2	6	410	12	6
,, 30 ,, ...	1	5	0	456	15	0
Lieutenant-Colonel of the higher grade after 3 years' or after 20 years' total service...	1	10	0	547	0	0
Colonel after 3 years' service ...	1	15	0	638	5	0
Surgeon-General after 3 years' service...	2	0	0	730	0	0

Looking Back.

FROM

THE LANCET, *SATURDAY*, MAY 21, 1825.

FOREIGN DEPARTMENT.

ANALYSIS OF FOREIGN MEDICAL JOURNALS.

OMODEI'S ANNALI UNIV. DI MEDICINA.

Curious case of a horny excrescence growing from the head.

Paul Rodriquez of Messico, a tall man, and of athletic temperament, was in the habit of wearing a large cap of a peculiar figure, in order to conceal a tumour which projected from the side of his head, and which had at last reached an extraordinary size. Being at work in a warehouse, he was desired one day to assist in lifting a barrel of sugar into a cart; the barrel slipt back a little and struck Rodriquez with such violence on his concealed horns, that he fell upon the pavement insensible. In this state he was conveyed to the hospital of St. Andrew, which afforded the surgeons an opportunity of examining accurately these curious growths. A horny projection was found growing from the right and anterior part of the head, measuring *fourteen inches* in circumference; and about one inch from its base it divided into *three branches*, two large and one small. The central horn which was the largest, was curved and descended many inches below the ear, and then turned forward upon the cheek. The smallest excrescence of the three was situated just in front of the large one, and passed down on the cheek, just behind the external angle of the eye, as far as the middle of the superior maxillary bone, and was about three inches in length. Its extremity was separated about an inch from the curved termination of the middle horn, so that a considerable portion of the cheek, of a semicircular figure, was left between these two excrescences. The middle excrescence was very much the shape of a ram's horn, and had circular depressions and elevations marking the progress of its growth, just as the rings are seen on the horns of the ram, and it exhaled an odour exactly like the horn of that animal.

The violence with which the blow had been inflicted had broken off the lower extremity of the posterior horn, and had smashed its structure still higher up, so that its cavity was filled with blood. This singular excrescence did not adhere to the bones of the head, but appeared to grow from a cyst in the scalp, the sides of which were very thick, and lined with a smooth membrane.

Many analogous cases are on record, but we have never met with any account of a case in which the size of the horny excrescence was so large as in the present.

Public Health and Poor Law.

LOCAL GOVERNMENT BOARD.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On the Sanitary Circumstances of the Ashington Urban District and on Recent Enteric Fever therein, by Dr. L. W. DARRA MAIR.[1]—Ashington urban district comprises two Northumberland colliery villages, Hirst and Ashington, with populations respectively of about 7600 and 6300. Both villages are inhabited mainly by miners who work at one or other of three collieries belonging to the Ashington Colliery Company. Hirst is the newer place of the two and its residents are for the most part young adults with their families, whereas Ashington contains an older generation of miners. Dr. Darra Mair gives an account of the sanitary conditions of both villages, with particular reference to the opportunities for the spread of enteric fever. He draws attention to the way in which new dwellings are being put up without any regulation by building by-laws, to the uneven and unpaved surfaces at the backs of the houses, and to defective arrangements for emptying the ashpits and privies which lead to fouling of the soil. This is the more important as these receptacles are emptied more frequently and systematically than is the case in many villages of a like character, the colliery company undertaking to remove refuse once a fortnight. The company also supplies water to both villages. There is a service of mains for "slop water" which consists of a portion of the water pumped up in the ordinary operations of the collieries and is used for watering streets, for flushing sewers, and for fire-brigade purposes. Another series of mains supplies Ashington and Hirst with water for drinking and domestic use, which is pumped from certain deep coal mines which are no longer worked. The water from these mines is derived from the sandstone and collects in underground reservoirs formed by the worked-out coal seams. It is pumped to the surface, passed through a filter, and stored in disused boilers which serve as storage tanks. The urban district had for some years past shown a high attack-rate and also a high death-rate from enteric fever. In 1901 187 cases of this disease were notified, 135 occurring in Hirst and 52 in Ashington. 20 of the cases at Hirst and eight of the cases at Ashington were fatal. This outbreak began at the end of August, 1901, and reached its height in October and November. Cases continued to occur in the early months of 1902, the prevalence of the disease ceasing in May. Dr. Darra Mair's inquiries were made in February, 1902, and also later in the year, when he was assisted by Mr. Law of the engineering department of the Local Goverment Board in an investigation of the conditions of the water service. This additional inquiry had become necessary in consideration of the various facts ascertained regarding the outbreak in the autumn of 1901. The dwellings in which enteric fever occurred during this period were scattered throughout both villages, with the exception of the one portion of Hirst which was not supplied with drinking water from the colliery company's mains. The disease occurred with greatest intensity in portions of two parallel streets in Hirst, in which 27 out of a total of 52 houses were affected. These two portions of streets were served by a common water main situated at the termination of the colliery company's water system and forming a "dead end." These and other considerations set out in detail in the report led Dr. Darra Mair to conclude that somehow or other the whole drinking water-supply had become specifically contaminated and had been accompanied by special infectivity of water drawn from taps near the terminals of the mains. This seemed to be the more probable as he was able to exclude any idea that milk or other articles of food had been concerned in producing the outbreak in consequence of careful local inquiries which had been made by Dr. J. M. Hembrough, medical officer of health of Northumberland. When, however, search was made for possible sources of contamination of the underground reservoirs of the colliery company the results proved to be almost entirely negative. No opportunity of leakage from portions of the collieries where

[1] London: Eyre and Spottiswoode, East Harding-street; Edinburgh: Oliver and Boyd; Dublin: E. Ponsonby. Price 4d.

work is going on could be detected. Obviously, however, a number of intricate geological questions would need to be dealt with before the absence of such opportunities could be asserted and it is noteworthy that analysis of three samples of the colliery company's drinking water-supply, taken from taps in Hirst and Ashington on the same day, varied greatly in respect of total solids and free and albuminoid ammonia. This points either to unrecognised opportunities of contamination underground or to undetected possibilities of insuction in course of the distributing mains. Dr. Darra Mair evidently considers that the supply is one which must remain under suspicion, even after the thorough overhaul of the system of distributing pipes which he advocates. No alternative source of supply is readily available for the Ashington district alone, but possibly a solution of the difficulty may be found in combination with neighbouring districts for water-supply purposes on the lines of certain schemes now under the consideration of the Northumberland County Council.

On the General Sanitary Circumstances of the Parish of Loose in the Rural District of Maidstone, with especial reference to Drainage and Excrement Disposal, by Dr. R. D. SWEETING.—Dr. Sweeting reports the results of an inquiry ordered by the Local Government Board into an application by the Maidstone rural district council for the issue of an order declaring the cost of scavenging cesspools to be "special expenses," in the sense of the Public Health Acts, upon the whole or upon part of the parish of Loose on the outskirts of Maidstone. The matter had become pressing owing to the need of some system to supersede the present objectionable arrangements by which slop-water, excrement, and various kinds of refuse are habitually discharged into the tributary of the Medway which passes through Loose. The district council considered the provision of sewers to be impracticable in view of the local opposition made to the proposal and hence it advocated the general provision of cesspools in that portion of the parish which at present sends its liquid refuse into the stream, together with a system of periodical cleansing of these cesspools by the council at the cost of the parishioners concerned. Dr. Sweeting describes the condition of affairs in detail and makes a series of suggestions for remedying the present objectionable conditions without having recourse to a cesspool system. He recommends also that "special expenses" in respect of scavenging existing cesspools, as well as of providing and maintaining sewers, should be chargeable to the parish as a whole.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Exeter Urban District.—The number of cases of enteric fever notified in Exeter during 1902 was, Dr. John Woodman reports, the lowest on record and he is inclined to attribute the diminution to the fact that within recent years the sewage of Exmouth has been directed from the cockle beds near to which it formerly discharged. It would have been useful had further details as regards the age distribution of the cases in the several years been given since, so far as we remember, the outbreak which occurred in Exeter as the result of the consumption of cockles at Exmouth was confined mainly to children at school ages. As a matter of fact the total cases (33) are only five lower than those (38) notified in 1895. But be this as it may, no one will question the propriety of Dr. Woodman's advice that the discharge of sewage in the immediate vicinity of any shell-fish beds should be prohibited. Dr. Woodman accentuates the importance of protecting the breeding grounds of shell-fish, but, as a matter of fact, the breeding grounds are second in importance to the "fattening" or market grounds—i.e., those places from which shell-fish are taken for immediate consumption. Pulmonary tuberculosis is notifiable in a voluntary sense in Exeter but Dr. Woodman regards this form of notification as of little value. He thinks that disinfection should be compulsory in all premises in which deaths from pulmonary tuberculosis have occurred. The public analyst of the city reports that in the public water-supply the number of micro-organisms per cubic centimetre in three samples examined was 35, 93, and 120, but it would have been interesting had the nature of such organisms been stated and had the filtrate from each of the filter beds been dealt with separately.

Knutsford, Middlewich, Winsford, and Biddulph Urban Districts.—Mr. T. W. H. Garstang reports that the offer of the several district councils referred to above to pay 2*s.* 6*d.* for each case of pulmonary tuberculosis notified has not met with much support from the medical practitioners concerned as only 10 such cases were notified during 1902, the deaths during the same period having been 33.

Plympton St. Mary Rural District.—This district council has decided to contribute to the part maintenance of one bed at the Didworthy sanatorium for consumption. In connexion with this subject of tuberculosis Mr. S. Noy Scott makes some very pertinent remarks. He thinks it well "to issue a word of warning with regard to the great expectations which are at present being raised as to sanatoria. It must not be forgotten that sanatoria of phthisis are to be mainly regarded as hospitals for dealing with the results of tuberculosis and for curing or arresting disease and should therefore hardly be classed amongst such primary and great preventive measures as subsoil drainage, well-built houses, provision of sunlight and air, prevention of overcrowding, and the rendering of unhealthy occupations less dangerous to the workers, and, therefore, although there can be no question as to the usefulness of sanatoria in the treatment of phthisis, yet it may be safely said that a given sum of money used in the promotion of the above list of 'primary preventive measures' would do more towards the permanent reduction of the death-rate from phthisis than many times the same sum expended in the building and support of sanatoria."

Wimbledon Urban District.—Measles has been notifiable in this district for the last five years and as a result of the experienced gained Mr. E. Pocklington, the medical officer of health, does not advise the continuance of the measure. The main arguments used seem to be that this measure has not prevented epidemics nor has it reduced the mortality from the disease. Mr. Pocklington is unable, he states, to stay the spread of the disease in schools inasmuch as the schools have not been closed when he regarded it as necessary. This statement appears to need some amplification. It is also urged that "were it possible by notification, &c., to check the spread for a few years we should have on our hands a large number of liable children to whom an epidemic would spread very rapidly when it eventually did occur, as surely would be the case." This is a somewhat fatalistic view to take of the situation and it overlooks the fact that there are obvious advantages in postponing an attack of measles. Although we fully admit that the subject of the notification of measles is a very difficult one we cannot regard the arguments here adduced for a discontinuance of notification as very convincing. Mr. Pocklington states that danger lies not in measles when the disease is properly looked after but in those cases which are neglected on account of their triviality. But surely one result of notification should be the education of the poorer classes in the proper care of measles.

Brighton Urban District.—In the middle of 1902 Brighton had a population of 124,539 and in his current annual report Dr. Arthur Newsholme furnishes the 1901 census figures for Brighton and the neighbourhood. The birth-rate in Brighton has markedly declined since 1882 and Dr. Newsholme refers in his report to the national aspect of the general reduction in the birth-rate in the country as a whole. He ascribes this reduction almost solely to the prevention of conception by artificial means. He thinks there is not "the slightest reason for believing that the potential fecundity of civilised man is declining." There are, however, many who would regard this statement as hardly supported by what is known as to the behaviour of animals under domestication. In connexion with small-pox Dr. Newsholme supplies some facts which tend to show the advantage of the notification of chicken-pox and this disease is consequently to be notifiable for another year in Brighton. With regard to both scarlet fever and diphtheria some interesting illustrations are given in the report before us of the importance of the early recognition of cases of these diseases and of the evil consequences which ensue from overlooking cases in their initial stages. Certainly the more we learn of epidemic diseases the more importance do we attach to the influence of unrecognised cases. Prophylactic doses of antitoxin were given in 27 instances during 1902, the medical practitioners receiving a fee of 2*s* 6*d.* for each case. None of the persons thus treated contracted the disease. As regards the value of this treatment Dr. Newsholme raises questions as to whether the employment of antitoxin in this prophylactic sense, although it may in some cases prevent the disease from developing, may not prevent the person so treated from becoming a source of infection. In the matter of the bacteriological examination for suspected

diphtheria we are glad to see that in Brighton "three consecutive failures to find the diphtheria bacillus are required before any importance can be attached to negative results." There were 42 cases of enteric fever in Brighton during 1902 and Dr. Newsholme states definitely that of this number "11 were caused by oysters, six and three secondary to these were caused by mussels, and one was caused by whelks, with one case secondary (by personal infection)." With regard to the evidence as to the connexion between shell-fish and diseases the statement is made that "it is purely circumstantial and can only be regarded as conclusive by those who, like myself, have felt the steadily increasing weight of conviction produced by the steady flow of cases for which no cause can, after diligent search, be detected other than the previous consumption of shell-fish." The words "of shell-fish known to have been derived from sources liable to specific pollution" are perhaps necessary to complete this sentence, as if the oysters were derived from mid-ocean and had no opportunities of becoming polluted the mere fact of the consumption of oysters would be of little greater value than the fact of the consumption of any other article of food theoretically capable of conveying enteric fever. But apparently Dr. Newsholme could, at least in some of the cases, have quite well added the words which we suggest, although we fear that the statements of some oyster merchants as regards the source of their shell-fish are not always to be relied upon. But in any circumstances there can be no question whatever that the sale of shell fish from polluted sources should be prohibited, and we are glad to see that Brighton has recently drafted a by-law which aims at "prohibiting the sale or exposure for sale in Brighton fish market of oysters or other shell-fish known to have come from a sewage-contaminated source." The words used in the by-law of "polluted or contaminated with sewage" might perhaps be held by some bacteriologists to apply to almost every estuary in England as well as to much of the littoral, but Dr. Newsholme may be trusted to take a reasonable view of the situation and to content himself with excluding shell-fish concerning which there can be no reasonable doubts. We much hope that Brighton will obtain, either in the shape of a modified by-law or otherwise, the protection which it seeks against the consumption of specifically polluted shell-fish. The voluntary notification of pulmonary tuberculosis has now been in operation in Brighton since 1899 and there appears to be a steady increase in the number of cases notified year by year. Certain cases seem to have been notified several times. In case of death or in the event of change of address disinfection and cleansing of the invaded houses are undertaken by the town council. As the result of four years' experience of the notification of pulmonary tuberculosis in Brighton Dr. Newsholme is of opinion that the measure is necessary in the interests of the public health. He is "more convinced than ever that the effective prevention of the spread of infection can only be secured when the family practitioner and the medical officer of health coöperate." Arrangements have now been made for the admission of cases of pulmonary tuberculosis into the isolation pavilion of the borough sanatorium, one of the main objects of this step being to educate the patients in precautionary measures.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In 76 of the largest English towns 8911 births and 4441 deaths were registered during the week ending May 16th. The annual rate of mortality in these towns, which had been 17·4, 17·5, and 15·9 per 1000 in the three preceding weeks, further declined to 15·4 per 1000 last week. In London the death-rate was 14·4 per 1000, while it averaged 15·8 in the 75 other large towns. The lowest death-rates in these towns were 3·3 in Hornsey, 7·1 in East Ham and in Hastings, 7·9 in Warrington, 8·6 in Willesden, 9·1 in Ipswich and in Handsworth, 9·8 in Kings Norton, and 10·6 in Devonport; while the highest rates were 21·2 in West Bromwich, 21·4 in Oldham, 21·8 in Merthyr Tydfil, 22·2 in Coventry, 22·9 in Stockport, 23·1 in Hanley, 24·0 in Rochdale, and 24·1 in Middlesbrough. The 4441 deaths in these towns last week included 428 which were referred to the principal infectious diseases, against 504, 518, and 457 in the three preceding weeks; of these 428 deaths 125 were referred to measles, 110 to whooping-cough, 57 to diarrhœa, 52 to diphtheria, 41 to scarlet fever, 26 to "fever" (principally enteric), and 17 to small-pox. In Hornsey, Brighton, Norwich, Stockport, Huddersfield, Halifax, York, South Shields, and in eight other smaller towns, no death from any of the principal infectious diseases was registered last week, while they caused the highest death-rates in Tottenham, Wolverhampton, Nottingham, Bootle, Wigan, Oldham, Merthyr Tydfil, and Swansea. The greatest proportional mortality from measles occurred in Croydon, Tottenham, Coventry, Nottingham, Wigan, Bolton, Manchester, and Swansea; from diphtheria in Hanley, Oldham, and Merthyr Tydfil; from whooping-cough in Salford, Oldham, Barrow-in-Furness, Sheffield, and Merthyr Tydfil; from "fever" in Wolverhampton; and from diarrhœa in Wolverhampton and West Bromwich. Six fatal cases of small-pox were registered in Liverpool, two in Leeds, and one each in Aston Manor, Bootle, Manchester, Oldham, Rochdale, Burnley, Bradford, Hull, and Gateshead, but not one in any other of the 76 large towns. The number of small-pox patients under treatment in the Metropolitan Asylums hospitals, which had risen from seven to 60 on the eight preceding Saturdays, were again 60 on Saturday, May 16th; seven new cases were admitted during the week, against nine, 12, and 17 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 1756, against 1700, 1717, and 1730 at the end of the three preceding weeks; 236 new cases were admitted during the week, against 243, 235, and 229 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 280, 284, and 260 in the three preceding weeks, declined again last week to 226 and were five below the number in the corresponding period of last year. The causes of 67, or 1·5 per cent., of the deaths in the 76 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Plymouth, Bristol, Bolton, Salford, Oldham, Newcastle-on-Tyne, and in 36 other smaller towns; the largest proportions of uncertified deaths were registered in Leyton, Liverpool, Bootle, St. Helens, Preston, Sheffield, Rotherham, and South Shields.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been 18·5, 19·2, and 17·9 per 1000 in the three preceding weeks, rose again to 18·0 per 1000 during the week ending May 16th, and was 2·6 per 1000 in excess of the mean rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 7·7 in Perth and 12·9 in Aberdeen to 19·3 in Glasgow and 22·5 in Greenock. The 590 deaths in these towns included 25 which were referred to whooping-cough, 16 to measles, 12 to diarrhœa, six to diphtheria, five to "fever," and four to scarlet fever, but not one to small-pox. In all, 68 deaths resulted from these principal infectious diseases last week, against 57 in each of the two preceding weeks. These 68 deaths were equal to an annual rate of 2·1 per 1000, which was 0·6 above the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of whooping-cough, which had been 30, 32, and 26 in the three preceding weeks, further declined last week to 25, of which 12 occurred in Glasgow, seven in Edinburgh, and four in Greenock. The deaths from measles, which had been four, seven, and eight in the three preceding weeks, further rose to 16 last week, and included nine in Glasgow, and five in Edinburgh. The fatal cases of diarrhœa, which had been 11 in each of the two preceding weeks, increased last week to 12, of which seven were registered in Glasgow, two in Dundee, and two in Aberdeen. The deaths from diphtheria, which had been two, one, and five in the three preceding weeks, further rose to six last week and included four in Glasgow, where also two of the five deaths from "fever" were recorded. The fatal cases of scarlet fever, which had been four in each of the two preceding weeks, were again four last week, and included two in Edinburgh and two in Paisley. The deaths referred to diseases of the respiratory organs in these towns, which had been 129, 125 and 104 in the three preceding weeks, further declined last week to 101, and were 13 below the number in the corresponding period of last year. The

causes of 24, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·8, 25·7, and 25·3 per 1000 in the three preceding weeks, further declined to 22·3 per 1000 during the week ending May 16th. During the past four weeks the death-rate has averaged 24·5 per 1000, the rates during the same period being 16·1 in London and 17·2 in Edinburgh. The 162 deaths of persons belonging to Dublin registered during the week under notice showed a decline of 22 from the number in the preceding week and included 15 which were referred to the principal infectious diseases, against eight, nine, and 15 in the three preceding weeks; of these, five resulted from measles, four from small-pox, three from whooping-cough, and one each from scarlet fever, from "fever," and from diarrhœa, but not one from diphtheria. These 15 deaths were equal to an annual rate of 2·1 per 1000, the death-rates last week from the same diseases being 1·5 in London and 2·5 in Edinburgh. The deaths from measles, which had been one, one, and 0 in the three preceding weeks, increased last week to five. The fatal cases of small-pox, which had been one, three, and four in the three preceding weeks, were again four last week. The deaths from whooping-cough, which had been one, one, and four in the three preceding weeks, declined again last week to three. The 162 deaths in Dublin last week included 34 of children under one year of age and 48 of persons aged 60 years and upwards; the deaths among both infants and elderly persons slightly exceeded the respective numbers recorded in the preceding week. Two inquest cases were registered, and 71, or nearly 44 per cent., of the deaths occurred in public institutions. The causes of five, or more than 3 per cent., of the deaths in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Surgeons: F. F. Lobb to Royal Marines Division, Plymouth, and E. F. Mortimer to Plymouth Hospital.

Civil Practitioner: T. Foley to be Surgeon and Agent at Ardmore, Ballymacart, and Whiting Bay.

1ST LIFE GUARDS.

Surgeon-Major B. W. C. Deeble to be Surgeon-Lieutenant-Colonel. Dated Feb. 3rd, 1903.

ROYAL ARMY MEDICAL CORPS.

Major J. Paterson, from half-pay, to be Major, vice V. E. Hunter, deceased, with precedence next below A. P. Blenkinson. Dated April 26th, 1903. Lieutenant G. W. G. Hughes, from the seconded list, to be Lieutenant. Dated May 2nd, 1903. Lieutenant-Colonel William Birkmyre Miller, retires on retired pay. Dated May 16th, 1903.

The undermentioned Lieutenants to be Captains (dated April 25th, 1903):—T. Biggam, W. L. Baker, F. W. Cotton, F. M. Parry, B. R. Dinnis, W. J. P. Adye-Curran, J. Powell, R. L. Argles, J. G. Foster, E. G. Ford, F. S. Walker, L. M. Purser, W. Bennett, P. G. Stock, H. B. Fawcus, T. E. Fielding, E. P. Sewell, C. H. Straton, B. S. Bartlett, R. T. Brown, G. Carroll, D. O. Hyde, A. E. Hamerton, G. J. Houghton, J. G. Churton, A. D. Waring, T. H. Stevenson, J. M. Cuthbert, F. McLennan, A. F. Weston, J. Dorgan, C. H. Furnivall, J. H. Robinson, and Fitz G. FitzGerald.

THE ROYAL MILITARY TOURNAMENT.

Important as are the many aspects from which the Royal Military Tournament at the Agricultural Hall may be viewed there is one which should be placed before all others—namely, the point of view of charity. The entire profits derived from the performances—an aggregate of £47,000 for the past seven years—are devoted by the commander-in-chief to naval and military charities, and for this reason alone the tournament should receive the widest support. But the tournament has an important bearing on the education of the general public in military matters and forms a means of healthy amusement for the people, to say nothing of its use as an aid to recruiting. For the present we must confine ourselves to a brief reference to the displays and competitions, reserving for another occasion, if space permits, a more critical review of the tournament. From a spectacular point of view the pageant, which is a miniature representation of the Delhi durbar, is enthusiastically appreciated, as is also the military tattoo by massed bands; the latter item, however, is only to be seen and heard three times in the fortnight during which the tournament is in process. It is worth a visit to the Agricultural Hall to see either of these items alone, but there are other "turns"—if we may borrow a word from music-hall parlance—which are equally attractive, and amongst them we may mention the musical double ride by the 2nd Life Guards, the finest performance of this description which has ever been seen at the tournament. Next week the Life Guards will give place to the 5th Royal Irish Lancers. The displays by the seamen of the *Excellent* and by the Royal Marines are referred to in another part of our present issue (p. 1457). Then there are the competition of the Army Service Corps, a wonderful exhibition of smartness; the musical drive by the Royal Artillery; bareback riding, furnished by a team from the Cavalry Depôt at Canterbury; the display by the A Battery of the Royal Field Artillery; wrestling on horseback and the usual competitions, which include tent-pegging, lemon-cutting, heads and posts, and the combats between men using the various arms of the service. Altogether the twenty-fourth Royal Military Tournament is the best which has ever been held at Islington and Major-General Oliphant and his committee deserve the best thanks of the public for providing such an excellent, instructive, and entertaining programme. The medical and sanitary arrangements, though perhaps not all that could be desired, are undoubtedly the best that can be obtained in a building which does not belong to the military authorities and which is certainly not adapted to military performances. Surgeon-Lieutenant-Colonel W. R. Crooke-Lawless of the Coldstream Guards is the principal medical officer and he is assisted by Captain F. A. Symons, R.A.M.C. Lieutenant-Colonel A. R. Rowe is in charge of the veterinary arrangements. The tournament will close on May 30th.

THE WOUNDED IN NAVAL WARFARE.

The disposal of the wounded in naval warfare is confessedly a very difficult problem. In a lecture delivered recently at the Royal United Service Institution and published in our present issue (p. 1431) Dr. Philip N. Randall, late R.N., advocated the plan which has seemed to be the most plausible to those who have given the matter consideration, namely, the provision of vessels flying the Geneva Cross and specially fitted out for the purpose. These should be attached to a fleet and utilised for the reception and treatment of the wounded during or immediately after an engagement. There seemed to be a consensus of opinion among those who took part in the discussion that it would prove unsafe and impracticable to attempt any removal of the wounded during an action and that beyond having first aid rendered to them the wounded must remain where they were until the action was over and their safe removal could be assured.

THE ARMY CORPS.

Whether an army corps scheme borrowed from the continent or an organisation by divisions be best suited to this country from a strategical point of view is a matter into which we need not enter. It must be admitted, however, that the War Office return just issued giving the actual numbers and peace establishment of the units in the First, Second, Third, and Fourth Army Corps goes a long way in showing that such corps are not a mere paper organisation, and that they are not, as has been alleged, only phantom corps, but that they have a fairly real existence and that Mr. Brodrick's contentions regarding his new scheme have been so far justified.

The King has granted to Captain Henry Nason Dunn, R.A.M.C., His Majesty's Royal licence and authority that he may accept and wear the Insignia of the Fourth Class of the Imperial Ottoman Order of the Osmanieh, conferred upon him by His Highness the Khedive of Egypt in recognition of valuable services rendered to the Egyptian Government.

The report of the committee appointed to consider the existing conditions under which canteens and regimental institutes are conducted, together with a minority report and appendices, has been issued as a Parliamentary Blue-book.

Correspondence.

"Audi alteram partem."

THE SPREAD OF THE PRACTICE OF CREMATION.

To the Editors of THE LANCET.

SIRS,—In January last I made it my business to address a circular to the president or manager of every crematorium in the world, requesting him to oblige me with the sum total of the bodies cremated during the year 1902, from Jan. 1st to Dec. 31st inclusive. This has been responded to almost in every instance. No considerable one has failed to comply with my request. Of the entire number only six or seven small ones in Italy have failed. I have placed the results in a tabular form for brevity and to facilitate comparison. The English crematoriums have also the numbers given from the date of their establishment in each case.

Number of Bodies Cremated in England during 1902.

Golder's Green, Hendon (3½ miles from Regent's Park), opened Nov. 20th, 1902	7	Total since commencement	7		
Woking	275	" "	1885		2372
Manchester	81	" "	1892		657
Liverpool	54	" "	1896		196
Glasgow	20	" "	1895		113
Leicester	1	" "	1902		1
Darlington	1	" "	1901		3
Hull	18	" "	1901		30
Totals	452				3396

Number of Bodies Cremated Abroad during the Year 1902.

Germany—		*France*—	
Heidelberg	164	Paris	299
Offenbach	128	Rouen	6
Jena	91		
Mannheim	40	*America*—	
Gotha	234	Baltimore, Md.	17
Eisenach	17	St. Paul, Minn.	20
Hamburg (Ohlsdorf)	187	Davenport, Iowa	31
Sweden—		Pasadena, Col.	53
Gothenburg	39	Boston, Mass.	219
Stockholm	46	Boston, Mt. Auburn	119
Denmark—		New York, Fresh Pond	647
Copenhagen	44	Milwaukee, Wis.	51
Switzerland—		Fort Wayne, Ind.	5
Basle	30	Troy, N. York	24
Geneva (commenced on March 8th)	28	Washington, Pa.	130
Zürich	139	Washington, D.C.	32
Italy—*		Chicago, Ill., Graceland Cemetery	199
Torino	17	Cambridge, Mass.	134
Bologna	36	San Francisco, "Cypress Lawn"	352
Livorno	25	San Francisco, "Odd Fellows"	642
Modena	1	Buffalo, N. Y.	58
Perugia	2	Waterville, N. Y.	6
Cremona	6	Swinburne Is., N. Y.	3
Florence	20	St. Louis, Mis.	136
Siena	2	Philadelphia, Pa.	130
Rome	54	Cincinnati, Oh.	69
Padua	7	Michigan Crem. Assoc.	58
Asti	31	Pittsburg, Pa.	20
Verona	1	Lancaster, Pa.	3
San Remo	5	Washington, "LeMoyne" †	
Venice	3		
Udine	5		
Milan (in 1901, 103)	107		

* The names of the 10 smaller Italian crematoriums which furnished no answer but whose number of cremations in 1901 averaged only two or three per annum are: Lodi, Spezia, Como, Brescia, Mantova, Pisa, Varese, Novara, Brà, and Spoleto, the total of the ten being 24.

† The present Mr. LeMoyne writes me:—

Edgewood Farm, Washington, Pa., April 14th, 1903.

DEAR SIR HENRY,—The last cremation in "LeMoyne Crematory" was June 10th, 1901. The "LeMoyne Crematory" was built by my father, Dr. F. Julius LeMoyne, for his own use; for eight years it was the only one in U.S., and the public were allowed its use. In 1884 it was practically withdrawn from the public. We have had but four (4) cremations since then, each for some special reason. Newer crematories are now scattered over the country and no one has to travel far to reach one. The progress of cremation in this country has been rapid and gratifying.

Yours truly,

JULIUS LEMOYNE, Trustee.

Canada.—Montreal, Mount Royal Cemetery, 3 (first year).

New South Wales.—Sydney.—The Right Hon. J. M. Creed, M.P., writes me word that at present no crematorium exists but "that two bodies have been cremated recently by apparatus improvised for the purpose."

I am, Sirs, yours faithfully,

Wimpole-street, W., May 6th, 1903. HENRY THOMPSON.

ACUTE AMAUROSIS FOLLOWING INFANTILE CONVULSIONS.

To the Editors of THE LANCET.

SIRS,—Dr. Henry Ashby and Mr. Sydney Stephenson in their paper on the above subject read before the Society for the Study of Disease in Children in March last[1] place on record what they consider to be a variety of amaurosis in early life distinct from that due to post-basal meningitis. In some cases hemiplegia followed convulsions together with blindness, the sight returning but not the paresis in the limbs. In other cases paralysis was slight and the paresis disappeared before the amaurosis. The condition they describe reminds them of the status epilepticus of adults, a state of exhaustion of cortical centres, and their point is that whatever their origin the convulsions are the actual cause of the amaurosis to which they refer. Quite apart from posterior basal meningitis, I have seen temporary amaurosis in sequence to a series of infantile convulsions in a child 18 months old who had been subject to eclampsia, and I have also seen it in other conditions associated with convulsions which I should have ascribed to meningitis rather than to a condition of status epilepticus.

The theory which they put forward is certainly a plausible one but it is but a theory and lacks post-mortem confirmation. Again, on reading their cases which are narrated in support of that theory I must confess that certain of them impressed me as being not altogether free from a strong suspicion of meningitis and in one or two instances the possibility of an intracranial hæmorrhage cannot be altogether excluded. That a child recovers sight is no proof that serious organic mischief was not present and to which the amaurosis was due; indeed, sight may be recovered and lost and recovered and lost again and yet extensive disease of the brain be present the whole time. The persistence of hemiplegia is, I think, a strong point against a functional cortical disorder. Neither is the absence of optic neuritis nor a state of activity of the pupils a guarantee that there is no meningitis present.

Perhaps a case which was under my observation for several years will best illustrate the difficulties and the danger of drawing conclusions as to the absence of organic mischief. It is not quite on a par with the cases narrated by them by reason of the absence of initial convulsions, but it is of interest from the point of view that had the patient not been kept under observation for a very long period it might have been thought to be of a functional character and it might have been recorded as a case of recovery from functional amaurosis.

The patient, a female, was first seen in December, 1886, with paralysis of the right arm, and possibly of the face, of a week's duration which had come on quite insidiously. Next she dragged her leg and in a fortnight from the commencement of the paralysis she had hemiplegia with knee and ankle clonus of that side. There were no constitutional symptoms, the temperature was not raised, and the fundi oculorum were quite natural. In March she developed hemichorea and lost her sight. There were no fundal changes and she was thought to be suffering from functional amblyopia by the ophthalmic surgeon who saw her at the time. In view of this diagnosis she was looked upon with

[1] THE LANCET, May 9th, 1903, p. 1294.

suspicion and it was thought to be a case of hysteria. About this time her arm became very painful and the twitchings in the limb were so severe that it had to be strapped to her side. In June the *left* arm was occasionally rigid and it was sometimes "jerked about"; the patellar reflexes were exaggerated and clonuses were obtained to a less extent in the left leg. The left angle of the mouth was drawn to this side more than to the right. By September she had better control of her legs and there was but slight if any rigidity. The movements of the left arm on attempting any voluntary exercise were increased in violence and the incoördination and rigidity were more marked. The right arm was about the same. In December, 1887, the sight of the right eye was much impaired and as it improved that of the left failed. From May to December, 1888, her sight was considered to be normal, but in this latter month the vision of both eyes began to fail again and she was unable to read or to sew. In February, 1889, the vision of each eye was $\frac{6}{60}$, central vision was defective, and the field was limited. The left optic disc was certainly normal in appearance but the right optic disc presented rather small and somewhat tortuous arteries and it appeared to be whitish. In March she was said to have suddenly lost her sight when washing up the breakfast things and she complained at the time of sudden shooting pains in the eye. In May her mother was confident that she could not see. The left fundus oculi was then normal. The right optic disc was of paper whiteness and the arteries were very small and tortuous. She complained of continuous headache and she blundered into the furniture as she walked. In November, 1889, she developed epilepsy. In May, 1890, her knee-jerks were exaggerated and right ankle clonus was marked. During voluntary movements the right arm became tremulous but not otherwise: the hand was pronated and strongly adducted and the triceps and supinator jerks were exaggerated. There was no facial paralysis. In June the arteries of the left optic disc were slightly tortuous and the disc was pale; vision was defective but she fixed with it. In March, 1891, she was still epileptic and complained of headache and giddiness. In October, 1892, she was wet and dirty; she still had fits and was becoming more demented and she also had delusions. From then to December, 1895, her retrograde progress was slow but steady. She was then bedridden and wet and dirty but she had not had any fits for four months. In March, 1896, she was much worse, the fits were troublesome, and she died soon afterwards. At the necropsy lymph a third of an inch in thickness was found enveloping the whole of the brain. The whole of the left side of the brain in all its parts was smaller than the right. The convolutions were flattened. The ventricles contained but very little fluid. The vessels at the base were normal.

I am, Sirs, yours faithfully,

Welbeck-street, W. GEORGE CARPENTER.

CONICAL CORNEA.

To the Editors of THE LANCET.

SIRS,—I frankly own that the paper published in the *British Medical Journal* of Feb. 23rd, 1889, by Mr. Richard Williams of Liverpool had escaped my notice or I would certainly have given him the credit of initiating non-perforation of the cornea. I may, however, remind him that my paper was published in the *Practitioner* in 1895 and it is only now that he has called my attention to his own prior communication, thus showing that his knowledge of the literature of the subject was also somewhat wanting. My chief claim to originality lies in the creation of two distinct zones of varying depths and a small central spot which in the process of healing exercise a graduated pressure and I venture to hope that Mr. Williams will give this method a trial.

I am, Sirs, yours faithfully,

Harley-street, W., May 19th, 1903. ANDERSON CRITCHETT.

A QUERY IN EMBRYOLOGY.

To the Editors of THE LANCET.

SIRS,—Without trying to solve the question asked by "Oxon" in THE LANCET of May 16th, p. 1404, as to whether the blue she-cat was impregnated by the "blue tom" or by the "black and white tom" or by both, or whether the spermatozoa of the one were destroyed by those of the other, and also without trying to account for the prolongation of gestation, if any, the question which he raises (that is, supposing fruitful congress took place between the two blue cats) resolves itself into a discussion as to the transmission or non-transmission of acquired characters. But here it has to be pointed out (for "Oxon" asks if it was simply a case of "maternal impression") that if anything was acquired by the she-cat it was a *mental* impression and not a black and white colour. What the kittens evidenced was a black and white colour and not, as it would seem from "Oxon's" letter, a mental impression. Surely a specific physical formation cannot be held to be the result or transmission of a specific nervous impression, for what the mother acquired was one thing and what the kittens evidenced was quite another and a thing totally distinct.

I am, Sirs, yours faithfully,

Liverpool, May 16th, 1903. CHARLES R. NIVEN.

MEDICAL TESTIMONIALS FOR TRADE PURPOSES.

To the Editors of THE LANCET.

SIRS,—A liberal sample of a new potable spirit is being sent to members of the profession. This spirit may possess all the merits the proprietors claim for it, but in view of the free way in which "the opinion of thousands of the medical profession" and "over 6000 testimonials have been received from medical men" are paraded in advertisements and pamphlets issued by the vendors of a certain beef, malt, and wine compound, it is to be hoped that the gratitude of the receipients of the sample referred to will not in this case express itself in a manner so humiliating. If a medical man is of opinion that a preparation of which he has received a sample would be of value in his practice, by all means let him prescribe it in the usual way: but he should not be beguiled into giving a written opinion which will in all probability be used for trade purposes.

I am, Sirs, yours faithfully,

Weymouth-street, W., May 11th, 1903. C. W. CHAPMAN.

THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

To the Editors of THE LANCET.

SIRS,—In common with many other readers of THE LANCET I have followed Mr. S. Wesley Wilson's correspondence on the Fellowship of the Royal College of Surgeons in Ireland with interest. If I recollect aright Mr. Wilson was registrar of the Irish Medical Council for many years. A more than ordinary responsibility therefore attaches to his letters. He deliberately states that the "Primary Fellowship" was given *without* examination to over 200 practitioners and students at £10 10*s.* each, that the College violated every contract by which it agreed to examine him, and that out of 40 candidates successively examined for the Fellowship of the Royal College of Surgeons in Ireland he records the extraordinary fact of 39 successes. Surely the Royal College of Surgeons in Ireland has some explanation to offer to the medical profession in connexion with these statements. Should its explanation not be satisfactory, your readers must accept Mr. Wilson's statements as facts and agree that his fees should be returned in full. But have the General Medical Council and the Fellows of the College themselves no say in the matter of irregular examination?

I am, Sirs, yours faithfully,

GEORGE FLEMING, M.B., C.M., M.R.C.P. Edin.

Ombersley.

AN EXTRAORDINARY MISADVENTURE.

To the Editors of THE LANCET.

SIRS,—The following case is a peculiar one and must be somewhat unusual. On May 1st I was summoned at midnight to attend Mrs. ——, who was reported by her husband to have had a premature labour. The case was some miles out, so in view of possible hæmorrhage I gave the man a tube of hypodermic ergotine citrate ($\frac{1}{100}$ grain) and told him to give two of the tabloids by the mouth if necessity arose. (I may add that I frequently give the hypodermic tabloids per os instead of the ext. ergotæ liq. on account of the less disagreeable taste of the former.) I arrived at the patient's house at 12.45

and found that the child, a six and a half months' one, had been born two hours, but that the placenta was still undelivered. This latter was expelled without any difficulty, but on finding the uterus still flaccid I asked for the ergotine. To my astonishment I discovered that a neighbour in attendance had mistaken the husband's instructions "to give two of these at once" and had instead given the tube itself and wondered where another one was. The patient had taken it in good faith, thinking it a new form of drug and wondering only why it was so long. Of course there was nothing to do but to wait. Castor oil was given freely and on the afternoon of May 5th—four days later—the tube arrived, without any pain and with the cork still *in situ*. I may add that the tube was half full of ergotine, so that the many risks of a foreign body in the intestine were much augmented by the fact of that body containing a poison. The patient is very well now and able to laugh over her adventure.—I am, Sirs, yours faithfully,

W. HERBERT GREGORY, M.D. Edin.

Beverley, May 16th, 1903.

ASPECTS OF LIFE ASSURANCE.

To the Editors of THE LANCET.

SIRS,—With reference to a leading article which appeared in THE LANCET of May 9th, p. 1313, calling attention to the provision which may be made for the future by those who insure their lives, I observe that considerable stress is laid upon the certainty attending this form of investment. Indeed, the fact that a sure provision is made for the survivors of the assured, owing to the financial soundness of life assurance companies, is one always dwelt upon by those who recommend them. Is not, however, this certainty of provision considerably lessened by the fact that many or most life assurance societies issue policies which are in express terms made void by the suicide of the assured? It is, of course, contemplated by them that a man might insure his life at a high figure, pay a premium or two, and then kill himself in order to pay his debts or to provide for his wife and family. I am, I believe, right in saying that suicide is thus excepted in the conditions usually made. If I am wrong you will, no doubt, correct me. My point is that suicide is very frequently the result of what is substantially disease and as much a cause or form of death to which all are liable as typhoid fever or a railway accident. Speaking from my own limited experience I can recall, among others, three persons in particular with whom I was personally acquainted who committed suicide. Two were lawyers with moderate professional incomes and private means; the third was engaged in commerce and his assets at his death amounted to not far from £100,000. Of the two former, one became depressed, I do not know why, and before anyone recognised the fact that his brain was affected took his own life; and the other, as everyone knew, after a severe attack of influenza found himself less able to work than before, got worried, and shot himself. Each of these was precisely the sort of man who might well have insured his life. There was nothing to distinguish him in health from his fellow men; each had a family and was earning enough to have been able to have done so. At all events neither was in embarrassed financial circumstances, any more than the third, whose brain, I believe, was affected by a succession of hunting accidents. I think, however, that I am right in saying that the majority of policies which would have held good had these men died from pneumonia or in the hunting-field would have been rendered void by suicide for which influenza or a hunting accident was directly responsible. Can life assurance, if it is ineffective in case of a death which (as I contend) is as much beyond the power of the assured to avoid as any resulting directly from disease, be regarded as a certain and safe provision for a professional man to make?

I am, Sirs, yours faithfully,

May 18th, 1903. N. M. R.

PRESENTATION TO A MEDICAL PRACTITIONER.—At Crediton (Devon) on May 9th Mr. Leslie Powne, M.R.C.S. Eng., L.S.A., was presented with a pair of gold cuff links by the members of the ladies' class of the St. John Ambulance Association, in appreciation of his services as honorary lecturer.

THE SECOND INTERNATIONAL CONGRESS OF THE MEDICAL PRESS.

(FROM OUR SPECIAL CORRESPONDENT.)

THE OPENING CEREMONY.

Madrid, May 6th.

IT seems a long way now to hark back to April 20th when the International Congress of the Medical Press held its inaugural sitting in the great hall of the Central University buildings of Madrid. But this congress, instead of terminating its labours on April 22nd, continued its work up to the very last minute on April 23rd, giving its members only just time to rush from the closing sitting of the one congress to assist at the opening ceremony of the other. This latter Congress, the Fourteenth International Congress of Medicine, affording greater general interest than the more specialised questions that concern medical journalism as a profession, it seemed to be better to describe the more important congress first in spite of the fact that it was held last. The inauguration of the Medical Press Congress was a ceremony well worthy of the occasion. Señor Allende Salazar, Minister of Public Instruction, presided, sitting by the side of Dr. Cortezo, the President of the International Congress of the Medical Press, and Dr. Calleja, President of the International Medical Congress. At the presidential table France was represented by Professor Cornil of Paris, president of the International Association of the Medical Press, and England by Dr. Frank Pope of Leicester, delegate of the Association of the British Medical Press. The rectors of the Universities of Madrid and of Barcelona were also in the place of honour at the presidential table. Dr. Larra y Cerezo, as general secretary of the Congress, was first called upon to make a statement and to explain the position of affairs. As a medical journalist Dr. Larra cannot be accused of being wanting in enterprise. He had barely terminated his studies, devoting himself especially to questions of hygiene and therapeutics, when he founded, in 1882, the *Therapeutical Review*, and not content with this he even published a daily medical paper called the *Diario Medico*. This was the fruit of youthful enterprise. Dr. Larra was only 23 years old at the time, nevertheless his daily paper lived ten months, and his review still exists though it was merged into *La Medicina Militaire Española* in 1895. Dr.

Dr. Carlos M. Cortezo, President of the International Congress of the Medical Press.

Larra, whose portrait was recently published in these columns,[1] has done much to promote the love of physical exercise in the schools of Spain and is a corresponding member of the British Sanitary Institute. He is likewise the publisher of a Spanish technical medical dictionary, to which a small supplement is issued every year containing the new terms that have arisen during the year.

Dr. LARRA explained that the Congress was attended by representatives of the medical press of the Argentine Republic, Belgium, Cuba, France, Germany, Great Britain, Greece, Holland, Italy, Norway, the United States, and Spain. It was for him a great honour to have assisted in bringing together the thinkers and writers of so many nations.

Dr. CORTEZO, as president of the Spanish Committee of Organisation and of the Congress, now rose to welcome the members and delegates, wishing them to consider themselves at home in Spain. The science which they advocated and taught did not recognise the fictitious differences and antagonisms created between nations. They rose above the frontier lines and in this Congress were all merely members of the same family. To be better understood, Dr. Cortezo spoke in French, German, and Italian as well as in Spanish. He pointed to the libraries that contained works from authors of all these countries. He alluded to the noble initiatives so often taken by France, even at the cost of the lives of her children, to the German profundity of thought and investigation, to the British love of freedom, and to the similar blue sky, history, and race that united Italians and Spaniards.

The MINISTER of PUBLIC INSTRUCTION next rose to speak, and in the name of the King and the Government welcomed the members of the Congress. He alluded to the help given by the medical press in connexion with those great discoveries which had revolutionised the practice of surgery. Further the medical press helped to weld together men of science from all parts of the world into one great brotherhood. In the name of the King and of the Government, in

Dr. Rafael Ulecia, Delegate of Spain to the Monaco Medical Press Conference.

the name of the entire Spanish people, he saluted all the delegates, especially those who from distant countries had honoured Spain by their presence, and declared that they were heartily welcome.

Professor CORNIL then spoke on behalf of the French medical journalists and expressed his gratitude to the King and the Government for their hospitality and for having rendered the meeting of the Congress possible. He recalled the origin of the International Association of the Medical Press, how it had been talked about at Rome, neglected at Moscow, and, how, with the active aid of the German and French medical press associations, a congress had actually been held in Paris in 1900. The medical press, he maintained, governed the medical profession just as other forms of human activity were governed by their respective journals. Virchow, Pasteur, Brown-Séquard, all had their "annals" or "archives." But they had now the medical journal, which like other journals, gave the latest professional news and treated all allied interests. The object of these journals was to preserve men from all that was unwholesome, to relieve and to cure mankind in the accomplishment of its mission. For this end medical journals had proclaimed that humanity had a right to pure air and water and that these were as important as daily bread. So the medical press while confined to its special task was yet helping all other sections of the community. Professor Cornil then alluded to the conference held last year at Monaco where the international committee was treated to the most generous hospitality. The result of the work there accomplished, the constitution which had been drawn up at Monaco, would now be submitted to the Madrid Congress. Having paid a graceful tribute to the memory of the late Dr. Laborde, who had so largely helped in drawing up a constitution for the Association, Professor Cornil concluded by pointing out that such congresses helped to refine and to elevate our thoughts.

Dr. POSNER (Berlin) spoke on behalf of the German medical press and that of the German-speaking part of Austria. He alluded to the great work of Virchow as a publicist and said that they would endeavour to follow in his footsteps and he hoped that the progress of science thus promoted would help to bring about international confraternity.

Dr. DEJACE spoke briefly for the medical press of Belgium—that little country which had accomplished great things.

Dr. SANTOS FERNANDEZ (Cuba) explained how he had striven to keep a medical press alive in that island, in spite of all the troubles and struggles which had afflicted his people. He expressed his gratitude to Spain for the help which it was giving in this great work of scientific progress.

Dr. CRYER (Philadelphia) said a few words on behalf of the medical press of the United States which had taken special pains to obtain full information concerning the congresses to meet in Madrid.

Dr. BLONDEL, as Secretary-General of the International Association of the Medical Press, alluded to the work done by the late Dr. Laborde who, he regretted, was not there to witness the crowning of the edifice which he had given himself so much trouble to raise.

It was now the turn of England and Mr. ADOLPHE SMITH rose to speak on behalf of the Association of the British Medical Press. He spoke in French and after expressing his gratitude for the royal patronage and the cordiality of the reception given, added that he had been three times in Spain. On the first occasion the country was devastated by a most terrible and widespread cholera epidemic, complicated by numerous earthquakes. On the second occasion war had just broken out with the United States. On the third and present occasion the country was in the throes and distracting cares of a general election. Nevertheless, and in spite of these trying and disturbing circumstances, the people and the Governments of Spain had invariably and with unruffled courtesy assisted him in the performance of his duty as a journalist and as an investigator on behalf of the scientific press.

Dr. ASCOLI having said a few words on behalf of Italy, the MINISTER of PUBLIC INSTRUCTION rose to reply. After expressing his satisfaction at what had been said by various delegates and thanking Professor Cornil for his cordial words, the Minister turned and addressing Mr. Adolphe Smith by name said he could assure him that notwithstanding all the viscissitudes through which Spain had passed and might still have to face the Spanish Government was always alive to the importance, indeed, was perfectly aware, of the great part played by the medical press in the cause of humanity. It was the means of diffusing knowledge to the remotest corners of the world. Medical men were, by the very nature of their duties, often called upon to live in distant parts, in rural districts and other places where it would be impossible for them to follow, and to keep abreast with, modern progress but for the fact that it was brought to their doors by the medical press. Therefore he could promise the British representatives that the Government would afford the press every facility to accomplish its high mission, particularly as it was so worthily

[1] THE LANCET, May 2nd, p. 1270.

represented. He was grateful, from the very depths of his heart, to those gentlemen who had come from such great distances to coöperate in the Congress and to awaken the spirit of progress. It was for the medical press to record and to make known all the progress that science achieved. In the name of His Majesty Don Alfonso XIII. he declared that the Second International Congress of the Medical Press was now open.

The military band then played the Royal March and this concluded the opening ceremony.

THE FIRST DAY.

Madrid, May 7th.

On the morning of April 21st the Congress held its first business meeting, having been duly inaugurated on the previous afternoon. Those members of the international committee who were present met in a private room to arrange the order of procedure. It was generally felt that those who had reports to read and speeches to make on general topics should be heard first and that then the more serious work of coming to a definite agreement and accepting the rules drawn up at Monaco would be more easily accomplished. It was no slight matter to select a judicious course, for there were present a large number of Spanish journalists who, it was quite evident, knew little of the real purpose for which we had met but were nevertheless anxious to deliver speeches or to read papers on what they imagined was, or should be, our motive. To let them disregard the rules of the association so carefully drawn up at Monaco and about which so many present knew little or nothing would be a dangerous proceeding. Therefore the field was thrown open to the readers of papers and the first to speak was Dr. ESPINA DE CAPO. He had a great deal to say about tuberculosis and what the medical press could do to prevent its spread, thus confusing the question of organising the medical press with the question of what medical journals could do to spread knowledge on certain subjects. Dr. SANTOS FERNANDEZ of Cuba described the anti-tuberculosis league of Havana of which he was president. Then came Dr. TOLOSA-LATOUR, member of the Madrid Royal Academy of Medicine, who very sensibly urged that it was the mission of the press in general, of the daily popular political papers, to spread some knowledge of those sanitary measures which were the best preventive of tuberculosis. Dr. AVILEZ having said something about the control of mineral waters in Spain and Professor MARTINEZ VARGUS on the distribution of tracts on sanitation, Dr. TOLOSA-LATOUR rose again to read a lengthy speech which he had had printed in French and in pamphlet form. He appropriately reminded the Congress that not only the medical press but the general press of France had been founded by a medical man—that was, by Théophraste Renaudot—who was a philanthropist, a doctor, a man of letters and a genial journalist, and whose statue ornamented one of the public squares of Paris. In Spain they could only show to the Congress the modest bust of a contemporaneous writer, Dr. Benavente, whose fine sense of irony and literary talents had endeared his memory to the Spanish people and had been transmitted to one of his sons. If the Spanish schools and the Spanish press did not display evidence of wealth they were not lacking in ardour and good intentions. But they had to borrow much from other nations and in their haste to translate good foreign works into Spanish they often committed regrettable errors. Then the speaker went on to describe how much better industrial property was protected than was literary property. In regard to the medical press they must not have, he argued, too many restrictions, for knowledge must spread. On the other hand, the journalist was ever seeking for a new idea, a new discovery, and to give it a body and a means of presentation. Journalists had thus often the opportunity of strengthening, improving, or rendering more comprehensible a new idea or discovery. Now, a chemist who made a new explosive became a millionaire, but a medical man who discovered a new microbe or how to perform a new and useful operation, or found a new remedy, received nothing for his reward unless he was able to give his discovery a commercial aspect and thus to obtain protection. At best he only received a very feeble reward and some belated honours. The man of science could only claim that his authorship of the discovery should be recognised; but however widely this discovery might be noticed in the press he received nothing for it. If Krupp made a large fortune why had not Pasteur been similarly fortunate? He then went on to urge that the pure scientific idea, apart from the manner in which it was clothed and described, should be recognised as a property by the International Association of the Medical Press. The man of science sowed and the journalist cultivated the soil and the two together created a value, a property, which they should strive to protect from the charlatan and the adventurer. It was the mission of the medical press to endeavour to secure for the author of the new idea or discovery full recognition and adequate reward.

Dr. BLONDEL, speaking next, said he was pleased to see these generous ideas coming to the front again. But who was the first inventor or who was first to conceive a new idea? The most recent inventions were modern adaptations of what was already partially and sometimes completely known. Then such recognitions of the supposed author of ideas would lead to terrible conflicts arising out of complex financial interests. They of the press, said Dr. Blondel, did their best to render justice to the authors of new and useful ideas and did not willingly misrepresent the facts. Sometimes they committed errors, but as a rule justice was generally done at least in the long run. The author of an idea might get protection if he formulated and published his idea. How was it possible to take into consideration that which had not been formulated?

Dr. FERNANDEZ agreed with Dr. Blondel; it was right in principle to protect the mere idea but it was not practical.

Dr. TOLOSA-LATOUR replied that he was aware of all these objections, but were they to leave the idea or discovery of the man of science at the mercy of the journalist? The man who wrote a summary of a lecture in which the new idea had been propounded acquired a copyright of this summary description but the inventor himself had nothing at all, neither copyright nor anything else. A man might make a drawing of the new idea, or if it was an instrument then the instrument maker might manufacture the instrument, the one sell his drawing, the other the instrument, and both received something, but the real author got nothing, neither payment nor protection.

Professor CORNIL said that he was pleased to have heard this discussion but he thought that the case was fairly met by Article 3 of the statutes as drawn up at Monaco, which stipulated that the real author should always be recognised. On the other hand, public lectures were public property, just as were the speeches delivered in Parliament. The professor, he maintained, had no right over his lectures; he could not reserve any portion of his lessons. That had been fully established by the French law courts. Public instruction should be given to all and belonged to all so that all might learn.

The Congress then adjourned for lunch, meeting again in the afternoon, when Dr. LARRA read a report on the Spanish medical press. It had been in existence some two centuries. There was a military medical paper published in Madrid in 1773.

Dr. BLONDEL followed on a professional point—namely, the publication in periodical papers of reports of the proceedings of learned societies. These societies themselves issued reports of their own proceedings but they appeared at greater length and at a later date, perhaps weeks or months afterwards. From one point of view this was an advantage, but the work was not so carefully done. On the other hand, the great teachers were also more careless than they used to be. They now contented themselves in going to some scientific meeting where they made a few extempore remarks, trusting to the medical press to preserve their teachings. Some very great men had never given anything else to the public. This was a degeneration, for it encouraged carelessness. Dr. Blondel thought it was a disadvantage to the press as well as to the publications of the learned societies. As a matter of news it was smart work to give quickly the gist of what had been said, but the more serious reviews that appeared once a quarter suffered. The great names that used to illuminate the pages of such publications did not appear so often and they no longer had so many careful studies from their pens. Some papers in France gave six or more columns to reports of meetings of the Academy of Medicine and many professors were now content to trust to shorthand writers and had ceased to write anything themselves.

Dr. POSNER thought the picture given was exaggerated. In Germany some papers were the organs of the great scientific societies and it was their business to give in full all that they

could obtain. He could see no danger in this. The object was to give all news and that as quickly as possible. It was the professors' and doctors' own fault if they did not write long and carefully-thought-out papers. In Germany the general complaint was that these papers were too long. A little clever, crisp summarising would be very welcome so long as due credit was given to the authorities quoted.

Dr. BLONDEL replied that reports now appeared in 24 hours instead of two months and these reports were often almost *verbatim*, so that they destroyed all hope of subsequent and more careful publication.

Professor CORNIL remarked that as opinions seemed to differ they must give liberty to each to do as he thought best.

Dr. VIDAL said that a sharp line of demarcation should be made between what was but the bulletin or circular of a society and what was a *bonâ-fide* journal.

Dr. AVILEZ remarked that a real transformation was taking place and Mr. ADOLPHE SMITH insisted that the business of the Congress was with medical journals and not with publications that consisted simply of the transactions or proceedings of some one society.

Dr. BLONDEL again spoke, remarking that in Belgium the medical press was in danger of extinction through the competition of bulletins issued by societies and sometimes distributed gratuitously. These publications commenced merely as records of the proceedings of the society by which they were published. Then it occurred to someone that it would be useful to have a few advertisements, and as advertisers preferred journals scissors and paste were employed, a few leaderettes were written, and the bulletin was transformed into what pretended to be a journal. These publications were pushing the legitimate journals out of the field, at least in Belgium. Now in France there was a medical friendly society, l'Association des Médecins de France, and it had about 8000 members. It used to publish a bulletin which contained balance-sheets, a record of the widows and orphans of medical men who had been helped through the agency of the association, &c. Now, and so as to recruit more members, this bulletin was being forwarded gratuitously to all the medical men of France; then, so that those practitioners who did not belong to the association might be tempted to read it and perhaps ultimately to join and further so that advertisers might likewise be tempted to advertise, this bulletin had been converted into something like a journal, for it now contained a few original articles. The speaker wanted to know if a bulletin was to be considered a journal.

Dr. VIDAL said that a bulletin was paid for by the society it represented, it had neither editor nor staff; what it published was signed by the secretary of the society it represented and for the society. Therefore it was not a journal and the secretary of the society was not a journalist.

Dr. PITALUNGA (Italy) said that the double character of medical man and journalist somewhat complicated matters, particularly as there were three different kinds of periodical publications to be considered. There was the doubtful bulletin, the organ of a society; then there were the archives or reviews, solemn and ponderous, and appearing perhaps only once in three months. The merit of such a publication depended entirely upon the master by whom it was controlled and who published only careful and elaborate studies. It was all a question of the responsibility of the master. For his sake, and his sake alone, were such publications bought, and they were useful, for sometimes the master brought out young men who otherwise would never get a hearing. Then there was the *bonâ-fide* journal. He thought that it was easy enough to distinguish between these three very different categories of publications.

At this stage the Congress adjourned for the day.

THE FOURTEENTH INTERNATIONAL CONGRESS OF MEDICINE, MADRID.

(FROM ONE OF OUR CORRESPONDENTS.)

EXCURSION TO THE SOUTH OF SPAIN.

MUCH has been written of the discomfort endured by some members of the Congress who have lately returned from Spain. In many cases the discomfort was born of an imperfect knowledge of Spanish combined with a laudable, if child-like, wish to manage for oneself and not to be helped. It is pleasant, therefore, to record the successful issue of the excursions to the south of Spain under the guidance of competent conductors who did not exceed the moderate cost at first agreed upon. There were several of these excursions so arranged in point of time that the "caravans," as such parties are called by the railway officials, worked independently of each other, visiting the same towns in succession. In every case the parties had to be small, for the hotel and railway facilities in Spain are not great. One through train runs in each direction daily and on three nights a week there is an express with sleeping-cars attached. The track is single and the halts are many and long. Early breakfast and *déjeuner* are taken *en route* at a wayside station with the guard, engine-driver, and fireman, whilst dinner is usually served in the hotel either before starting or on arrival at the destination. Through carriages are only to be obtained as a special favour, the number of places in each train is as fixed as it used to be in the diligences, trains cannot be multiplied to suit the traffic, nor is it usual to add a carriage when the train is full. It is necessary, therefore, to give ample notice when a caravan of even moderate size intends to travel. Seats must be booked some days in advance and the heavy luggage may be required 12 hours before the train starts, a custom which affords ample opportunity for an unauthorised and furtive examination of the baggage in the early hours of the morning. Passengers are still penned up in stuffy waiting-rooms until the train starts and, more irritating than all, the booking office is closed with exemplary punctuality ten minutes before the advertised time of departure. There are, however, compensating advantages: the carriages are comfortable, all the windows are open, the trains are punctual, and as the average speed is about 17 miles an hour the country is seen at leisure.

A long night journey of 350 miles intervenes between Madrid and Seville, but the glories of the latter town amply repay the traveller for the discomfort of getting there. The magnificent Cathedral which overtops all the other buildings in the city, the Alcazar, or ancient royal palace, with its Moorish Hall of the Ambassadors and its lovely hanging gardens thronged with nightingales, the copy of Pontius Pilate's house, and the Torre del Oro where the gold of Mexico was stored on its arrival in Europe, make Seville the most interesting city in the south of Spain. The clean and narrow streets, the trim patios or forecourts of the houses, the shops open to the street as in a bazaar, and the dozens of barbers all plying their trade in full view of the passers-by were the first indications to the caravan that the customs of Paris and Madrid had been exchanged for an older and more picturesque civilisation. Three days were spent at Seville, one being a Sunday to give an opportunity of attending high mass celebrated most gorgeously and impressively in the Cathedral. Part of another day was devoted to visiting Italica which was founded by Scipio Africanus as a sanatorium for his veterans. A fine amphitheatre remains but there are not even ruins of the town where the emperors Trajan, Hadrian, and Theodosius first saw the light.

Three clear days did not exhaust the charms of Seville, for the whole time might well have been spent in the picture gallery amongst the Murillos which vie with, if they do not actually excel, the magnificent collection at Madrid. The fourth day was spent in traversing the 280 miles which separate Seville from Granada. The party was certainly routed and its individual members were nearly destroyed on their arrival by the touts of the different hotels in the town. But rooms had been secured in the Washington Irving Hotel within the grounds of the Alhambra and after a very late dinner most of the caravan went to bed, preferring to imagine rather than to see the beauties of the ancient Moorish palace as revealed by the light of a full moon. The next day was devoted to an exploration of the Alhambra, but it was not seen to the best advantage, for the weather was cold and dull, whilst the beggars were noisy and importunate. The beautiful gardens of the Generalife were visited and as a point of honour a drive was taken through the gipsies' quarter. The visit was not made without some trepidation on the part of the ladies, for one party had an escort of soldiers and another had ominous tidings of the newly committed murder and robbery of a Spanish gentleman who had been quietly returning home on the previous evening. The gipsies appeared, however, as picturesque villains dwelling in caves much after the fashion of our ancestors, but with greater conveniences,

prolific in children much given to halfpence and posture dances.

The caravan proceeded from Granada to Cordova, a distance of 140 miles, at the leisurely rate of ten miles an hour, a speed which gave ample time to survey the beauty of the Sierra Nevada, the constant covering of snow of which must be so grateful a sight to the inhabitants of the hot and wide plain beneath. The mosque at Cordova surpassed even the extravagant expectations which had been formed about it, so that the sightseer was prepared to condone vandalism which had built a great Christian church in its very midst, for the very size of the church revealed the immensity of the mosque within which it was hidden. The mosquitoes here became troublesome and there were few who did not welcome the time when they climbed into their sleeping-berths at Cordova to awaken in the plains of La Mancha whilst passing windmills any of which might have been successors to those tilted at by Don Quixote. The morning café was enlivened by the report that as the train had been overcrowded on the previous evening the night had been spent in depositing 30 or 40 would-be passengers at different wayside stations to reach their destinations as best they could and to learn the lesson that seats in a first-class train on a Spanish railway must be booked beforehand. The return journey from Madrid was as straightforward as the outward journey had been, for the Sud Express has admirable accommodation both for sleeping and refreshment. The caravan reduced itself to constituent units at Biarritz.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

An Eye Infirmary for Bangalore.—The Indian Medical Services.—The Increasing Plague Epidemic throughout India.—Accidents in the Streets of Indian Cities.—The Practice of Sati in India.

AN eye infirmary, estimated to cost Rs. 150,000, will shortly be built by the Mysore Durbar in connexion with the Victoria Jubilee Hospital erected during the late regency on the *glacis* of the Bangalore fort.

The proposal to form one body out of the various subordinate medical services in India by combining them into a single corps under the title of the Indian Army Medical Corps has been finally negatived.

The following figures are interesting as showing how the plague epidemic has spread in India during recent years. There were in 1897 56,000 recorded deaths; in 1900, 93,000; in 1901, 274,000; and in 1902, 577,000. During the first three months of the present year the mortality was 334,000, that in March last being no less than 136,000. The reduction in the plague mortality throughout India reported for the week ending April 11th has not been maintained. Once again a marked rise to 32,159 has occurred which is more than accounted for by the Punjab alone, where the plague mortality is now greater than in all the rest of the country put together, having gone up from 13,225 to 18,488. This is the history of last year repeating itself. There was an increase of about 1000 deaths in the United Provinces, bringing the total there to 4382. The counterbalancing decreases occurred in the Bombay presidency and in Bengal. In the United Provinces 12 cities are now suffering, including Allahabad, Agra, Benares, Cawnpore, Lucknow, Meerut, and Bareilly. The disease is now raging very fiercely in Karachi, but there are better returns from Bombay city and from Calcutta. The severe and continued prevalence of plague in Bombay city has led to the enlargement of the Marathu Plague Hospital. Five new wards have just been opened. They have been presented by some of the leading inhabitants and are constructed of red brick with Mangalore tiles and neat paving. They will prove a great improvement on some of the existing sheds. This hospital in Bombay has always been popular, the reasons given being that it is cheerful in appearance, is centrally situated, and is of sanitary construction; that there is an option given to all patients of native or European treatment; and that there is great freedom of access for the relatives.

The frequent accidents in the streets of the two cities of Calcutta and Bombay have drawn attention to the imperfect means in both cities for the conveyance to hospital of injured or sick persons. There are very few ambulances in Bombay and still fewer in Calcutta and the delay which occurs when there is an accident is a matter of public comment in both cities. Some attempt is about to be made in Calcutta to remedy this grievance, but unless the police are made responsible for the removal to hospital of these cases the provision of ambulances will not be of much avail. At present in both cities the want of the necessary organisation and material is a disgrace.

Although Sati or the burning of the widow on the funeral pyre of her husband was prohibited by the Government many years ago the practice is occasionally kept up in out-of-the-way places and in secrecy. This shows that the custom still lingers and the manner in which it is referred to by the native press also shows the underlying sympathy with this horrible form of cruelty. Although burning is now rare, the suicide of widows in other ways has to a certain extent taken its place, and every widow who kills herself on the death of her husband is styled a heroine. There is a widely-rooted idea that the wife should not outlive her husband and it is probable that if British rule were removed the old practice would be revived. The ideas are said to be founded on religious sanction, but the putting to death of innocent young lives ought not to be tolerated. If Hindu society cannot purify itself from such barbarous customs it will never gain the respect of educated and right-thinking persons, and if the encouraged practice (and it is apparently encouraged very strongly) continues the Government of India may be called upon to interfere.

April 30th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Manchester Coronership.

EVER since the death of Mr. Smelt, the late Manchester city coroner, there has been a good deal of interest shown as to the appointment of a successor. Some weeks ago the town hall committee of the county council, to which the preliminary task of making a selection to be afterwards submitted to the council was committed, reduced a list of 26 applications to six and then recommended a member of the medical profession for the office. There was no question as to his fitness, although he had had no previous experience of the work, but unfortunately he was at the time of his application as a candidate a member of the council and a member of the committee by which he was recommended for the coronership, although he afterwards resigned his membership of the council. At the subsequent meeting of the council the recommendation of the town-hall committee was set aside, as his appointment would have been on the extreme verge of legality if not absolutely illegal, and the matter was referred to a new committee specially chosen. This committee on May 8th selected six names from the original 26, setting aside the gentleman recommended by the town-hall committee and also another who is one of the legal staff in the town-hall, and substituting the names of two others of the candidates. After seeing each of the six, votes were taken and after the preliminary rounds there were 11 votes for Mr. Gibson and eight for Dr. Sellers and then the committee voted unanimously for Mr. Gibson who was chosen for the approval of the city council. Though it is not absolutely certain that the choice of the committee will be approved at the council meeting to be held to-morrow it is almost certain, for this time there is no illegality to bar the way, and Mr. Gibson comes with good credentials. He was educated at Trinity College, Cambridge; is B.A. and LL.B. with honours in the Law Tripos in 1883. He was called to the bar and practised at the bar of the Northern Circuit in Liverpool. In 1898 he began to study medicine at University College, Liverpool, and has passed all the examinations for the M.B. and Ch.B. except the last part of the final, for which he is not entitled to enter until July. He has been deputy coroner for Liverpool since 1892 and has conducted over 3000 inquests. "He stroked his college boat at Cambridge and he devotes holidays to mountain climbing." As there is only one coroner for Manchester it was certain that 25 out of the 26 candidates, many of whom were notably well qualified, would be disappointed, and one can only express sympathy with the unsuccessful.

A New Hospital for Skin Diseases.

The Manchester and Salford Hospital for Diseases of the Skin, established in 1884, has outgrown the accommodation

to be found at the modest building in Quay-street and a new hospital is to be provided. It will have a frontage to Quay-street and Byrom-street, and will accommodate 28 in-patients and a large number of patients for "light treatment." The out-patients' waiting-hall on the ground floor is planned for 200 patients and suitable consulting rooms are connected with it. The appliances for "light treatment" will be used on the first floor and the in-patients will be on the second floor where three pavilion wards are grouped in separate wings. The cost of the buildings is estimated at about £14,000.

John Dalton.

To-day and to-morrow the Manchester Literary and Philosophical Society celebrates the centenary of the announcement of the atomic theory by John Dalton, the most distinguished of its presidents. This afternoon Professor F. W. Clarke of Washington, U.S.A., will deliver the Wilde lecture on the atomic theory at the society's house in George-street. This will be followed by a dinner in the evening, quite in harmony with Dalton's views. For we are told that in his simple and regular life his "only diversion from chemical experiment was the game of bowls, which he played with infinite zest on the green of the Dog and Partridge near Stretford, every Thursday afternoon." After undergoing this exertion "he would go home to consume the food needed to supply the metabolism of the body and to sleep in order to obtain further nerve power for the next day's brain work." In this case the next day's work will be a degree ceremony of the Victoria University in the Owens College, when Earl Spencer will confer the honorary degree of D.Sc. on Professor Clarke and on Professor I. H. Van't Hoff of Berlin. This is not the place to give even a slight sketch of the career of the Quaker philosopher, but the story of his one love affair—which came to nothing, for he never married—is so quaint as perhaps to excuse its appearance here. He became attached to a lady who was accounted the "handsomest woman in Manchester." But as he wrote to his brother he felt himself secure against mere beauty, but "she began to descant upon the excellence of an exact acquaintance with English grammar and the art of letter-writing; to compare the merits of Johnson's and Sheridan's dictionaries; to converse upon the use of dephlogisticated marine acid in bleaching; upon the effects of opium on the animal system, &c., &c. I was no longer able to hold out but surrendered at discretion." He died in July, 1844. His remains were placed in the old Town Hall and it is said that 40,000 persons went to pay their last tribute of respect "to the Quaker chemist who had made Manchester famous throughout the whole learned world."

Manchester Infirmary Site.

The petition of the Manchester corporation for the insertion in the Bill now before Parliament of an additional provision relating to its acquisition of the site of the Royal Infirmary was yesterday before the examiner of standing order proofs. In point of time as to the publication of notices this provision of the Bill had not, of course, complied with standing orders and the examiner will so report to the committee which will be asked to dispense with these formalities and will, no doubt, accede to the petition.

New Hospital for Mid-Cheshire.

On May 8th Mr. J. Cawley, architect, was appointed to carry out the erection of the joint hospital. It is to have 34 beds, and the cost, exclusive of site and furnishing, should not exceed £8500 or £250 per bed.

Small-pox Costs.

The anti-vaccinationists will, no doubt, be delighted to see that the estimates for vaccination fees and expenses for the half year, for the four unions of Manchester, Salford, Chorlton, and Prestwich, owing to the persistent lingering of small-pox, amount to £5800.

May 19th.

WALES AND WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

Workhouse Nursing.

THE recently issued report of the Local Government Board departmental committee which was appointed to inquire into the nursing of the sick poor in workhouses was under discussion at Malvern on May 12th at the annual conference of Poor-law guardians from the West Midland district. Dr. Arthur H. Downes, one of the Poor-law inspectors of the Local Government Board, at the outset pointed out with satisfaction that within the past seven years there had been an increase of 52 per cent. in the number of paid officers engaged in nursing the sick in England and Wales, an evident proof of the efforts of guardians to provide paid and responsible nurses in the place of unpaid and irresponsible inmates. The increase had been more especially noticeable in the country workhouses. Dr. Downes then dealt with the difficulties attending not only the procuring of nurses but also in retaining their services. He urged boards of guardians to provide comfortable quarters, varied food, sufficient recreation, and not to overwork their nurses. He also advocated the establishment of training schools for nurses and emphasised the importance and necessity in the interests of economy of having a whole-time medical officer in all large workhouses. The departmental committee, he said, considered that in workhouses where the average daily number of sick was below 100 the matron, if properly trained and with suitable assistance, might act as superintendent nurse. The experience of the Atcham union in Shropshire and of the Stoke-on-Trent union with regard to the adoption of the recommendations of the departmental committee differed in a remarkable degree. The chairman of the Atcham board of guardians said that within the past few months seven superintendent nurses had come and gone at the Atcham workhouse and the board had found the greatest difficulty in obtaining nurses. The clerk to the Stoke-on-Trent union, which is one of the largest in the country, related, on the other hand, an entirely different experience and he thought that the fact of there being a nurses' home at Stoke-on-Trent was one reason why nurses stayed with them a considerable time and why they had no difficulty in obtaining a supply of nurses. Miss Gibson of the Birmingham Infirmary considered that it was quite impossible to train a nurse properly in an institution with only 60 or 100 patients. She was of opinion that no nurse should be appointed to a workhouse who had not been at least one year in a training school.

Imprisonment under the Infectious Disease (Notification) Acts.

A medical man lately practising in the Rhymney valley has suffered imprisonment for failing to comply with the requirements of the Infectious Disease (Notification) Acts. For neglecting to notify a case of infectious disease to the medical officer of health the gentleman in question was called upon to appear before the magistrates and in spite of his protestations that he had acted quite inadvertently and, indeed, that he had actually written out the certificate but had forgotten to post it, a fine was inflicted with the alternative of a month's imprisonment. As he declined to pay the fine he was taken to Cardiff gaol on May 9th but was released three days later after his friends had paid it.

Cardiff Grouped Poor-law Homes.

The Poor-law guardians of Glamorganshire have long recognised the desirability of taking the children under their care away from the workhouses. At Pontypridd, Bridgend, Neath, and Swansea grouped homes have been in use for several years and on May 13th the Cardiff board formally opened similar homes at Ely, an outlying district of the town. The Ely houses include two semi-detached and two detached cottages, each with accommodation for 12 children, and there is one larger house with room for 24 children. There is thus provision altogether for 72 children. In addition to these buildings there are a house for the superintendent, a store house, a small hospital, and suitable playgrounds. The cost of the scheme is about £8000. There are also in the Cardiff union 284 children living in 24 scattered homes. So long ago as 1863 the Cardiff workhouse children were housed in separate school buildings at Ely and these will now be used as an auxiliary workhouse.

Rural Water-supplies.

Rural district councils as a rule place a very broad interpretation upon the provisions of Section 6 of the Public Health (Water) Act, 1878, which prohibits the occupation of a new house unless there is provided within a reasonable distance of the house an available supply of wholesome water. It is disheartening therefore to find that when the members of a district council are desirous of giving effect to this section they are not supported by the local bench of magistrates.

The St. Mellons (Mon.) rural district council recently refused a certificate of occupation for a newly erected house within its district on the ground apparently that although there was a well on the premises the medical officer of health (Mr. W. E. James) reported that the water could become polluted by surface drainage and the supply was not a proper one. The owner of the house thereupon appealed to the justices who decided that the house might be occupied.

Typhus Fever and Small-pox at Cardiff.

Until the past few weeks typhus fever had been absent from Cardiff for many years. During the second week of April a case was reported in the town, and three weeks later it was found that four more persons were suffering from the disease. The outbreak has been traced to a man who came from Liverpool where 120 cases have occurred during the present year. At the beginning of May there was a recrudescence of the epidemic of small-pox in Cardiff which has been attributed to a barber who had been carrying on his business for nearly a fortnight while suffering from a mild attack of the disease. Altogether ten persons were infected from this source.

An Honorary Degree for Lord Lister.

At the congregation of the University of Wales which will be held at Cardiff in November next Lord Lister and Lord Kelvin will have conferred upon them the honorary degrees of doctor in science. The resolution relating to Lord Lister was unanimously passed at the annual extra collegiate meeting held on May 14th at Llandrindod and referred to his "long-continued scientific research which, by establishing a system of antisepsis, has revolutionised the practice of surgery throughout the world."

Notification of Measles.

At the meeting of the Midsomer Norton (Somerset) urban district council held on May 11th it was decided to include measles under the diseases which are notifiable under the Act of 1889 for the ensuing five years. A letter was read from the Local Government Board stating that the Board had the subject of the notification of measles generally under consideration and that the advantages from the addition of measles to the list of notifiable diseases were largely dependent on the notification, together with the attendant measures of prevention, being maintained for a reasonable number of years.

Vaccination Grant.

Mr. J. Dibble Staple, the public vaccinator for the Ashley district of the Bristol union, has been awarded the grant for successful vaccination by the Local Government Board for the third consecutive time.

May 19th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Visit of the King and the Queen to Glasgow.

GLASGOW on May 14th was happy in being honoured by a visit from the King and the Queen and the city, in spite of the unpropitious weather, showed itself to as great advantage as possible. Dense crowds thronged the entire length of the route which their Majesties took through the city and at every point they were received with the greatest enthusiasm and loyalty. The arrangements were perfect and the whole proceedings passed off without any serious accident to mar the success of the visit. The King on this occasion was pleased to lay the memorial stone of the new technical college in George-street. This ceremony took place before a large and representative gathering of the citizens, there being invitations issued to over 2500 guests. Glasgow has always been acknowledged as the commercial capital of Scotland and it is a matter of extreme satisfaction to the whole community that the Royal visit has been associated with an event so auspicious and one which must prove of good augury for the future of technical education in general and of this school in particular. Their Majesties during their progress through the city visited the new art galleries where the scene, in spite of the unfavourable weather, was very brilliant. They visited also the University, the foundation-stone of which was laid by themselves (as Prince and Princess of Wales) 35 years ago. Lord Balfour of Burleigh, the Secretary for Scotland, in the presence of a large gathering in front of the University, introduced Principal Story who, on behalf of the University authorities, briefly thanked their Majesties for honouring the University with a visit and presented an address. The King, in replying, recalled with satisfaction his own share in laying the foundation-stone of the noble building and recognised it as a true symbol of the greatness of the University which had adapted itself to the commercial expansion of the city. In concluding he expressed the earnest desire that this university and other universities as schools of higher learning might grow and prosper and so advance the material prosperity of his people.

Small-pox in Scotland.

On May 18th the Local Government Board of Scotland intimated that during the period from May 1st to 15th inclusive five cases of small-pox had been notified to it from the burgh of Dundee and one from the burgh of Glasgow.

May 19th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Irish Medical Association.

A MEETING of medical men, chiefly belonging to the Poor-law medical service of Belfast and surrounding districts, was held in the Medical Institute, Belfast, on May 6th, to consider the advisability of forming a Belfast and District Branch of the Irish Medical Association. There was a large attendance and on the motion of Dr. A. Mussen, J.P. (Glenavy, co. Antrim), seconded by Dr. D. P. Gaussen (Dunmurry), Professor J. W. Byers was called to the chair. Dr. A. Gardner Robb (honorary secretary *pro tem.*) having read several letters of apology from medical men unable to be present, Professor Byers, after thanking those present for asking him to preside, said that it was of the utmost importance that the grievances under which the Irish Poor-law medical officers laboured should be made public in order that they might be redressed. He said that these grievances were, in the main, inadequate remuneration, no fixed holidays, and no superannuation. So long as these grievances remained such a state of affairs was bad for the medical men concerned, degrading to the Poor-law medical service in Ireland, and injurious to the best interests of the country. An underpaid and overworked service would in the end be avoided by young men of ambition and ability starting life. He believed these grievances could be got rid of in two ways: (1) by the policy at present advised by the Irish Medical Association of the members of the medical profession combining and refusing to offer themselves as candidates for any vacancies that may arise until the authorities in the interests alike of the people as well as of the profession decided to improve the conditions of the service; and (2) by the help of the profession outside the Poor-law medical service. It was the bounden duty of every member of the profession to try to remove the grievances that pressed hard on any member of it and above all to bring contentment and happiness to all those who practised it. Speaking as one outside the Poor-law medical service he could promise that every help would be given to the dispensary medical officers of Ireland by all branches of the medical profession until their grievances were redressed. It was then decided to form a Belfast and District Branch of the Irish Medical Association and the following office-bearers were appointed:—President: Professor Byers. Vice-President: Dr. S. B. Coates. Secretary and treasurer: Dr. Robb. Members of Council: Dr. W. R. Davison (Ballymena), Dr. J. St.C. Boyd (Belfast), Dr. Mussen, Dr. J. M. Killen (Larne), Dr. Gaussen, Dr. J. J. Adams, J.P. (Ashville), Mr. J. D. Osborne (Belfast), Dr. J. McLiesh (Belfast), Mr. H. C. Manley (Whitehouse), and Dr. R. J. Munn (Belfast). The president, vice-president, and secretary, with Dr. Adams, Dr. Gaussen, Dr. Davison, and Mr. R. Currie were appointed delegates from the branch to the annual meeting of the association to be held in Enniskillen in June. The next meeting of the branch is to be held on June 30th.

Dispensary Contest in the Ardee Union.

For several months the position of dispensary officer to the Drumconrath district of the Ardee Union, co. Louth, has been vacant. The original salary was £120 per annum, with £30 as medical officer of health. In October, 1902, the guardians advertised the position at the old salary but there were no applicants. They refused to revise the salary and

postponed making any appointment for several months. They advertised again at the old salary and on May 5th there were two applicants—one from Lucan and Mr. W. H. Crean, medical officer at the Ringville Dispensary, Dungarvan, co. Waterford, who was elected. Had the salary been raised to £200, the minimum suggested by the Irish Medical Association, two local men would have applied, but they loyally adhered to the resolution of the local branch of the association and did not apply for the position. Although this appointment may in one sense be regarded as a victory over the Irish Medical Association it is satisfactory to find that 10 of the guardians voted for making no appointment, while those who elected Mr. Crean numbered 16.

Royal Victoria Hospital, Belfast.

At a largely attended meeting of the board of management and life governors of the Royal Victoria Hospital, Belfast, held on May 6th, Dr. J. S. Morrow was appointed assistant physician, Mr. J. A. Craig assistant ophthalmologist, and Mr. R. J. Johnston assistant physician for diseases of women. Dr. S. Blakely was appointed house surgeon.

The Sanitary Condition of Newry.

Dr. C. J. Clibborn (Local Government Board medical inspector) has reported to the Newry urban council that the sewerage of the Armagh side of the town of Newry is very defective. If the sewerage of the town were improved, the removal of refuse through dwelling-houses stopped, and a better class of privies built Dr. Clibborn thought that the number of cases of infectious diseases would be lessened. He also recommended an ambulance for the conveyance of patients with infectious disease.

Pulmonary Tuberculosis in the Belfast Workhouse.

A deputation from the Belfast board of guardians met the members of the public health committee on May 7th to discuss the steps to be taken to deal with the large number of consumptives in the Belfast union workhouse, when it was decided to appoint a committee of both boards to go fully into the question.

The Poor-law Guardians in Ireland and the Medical Profession.

The constant friction between the medical profession and the Poor-law guardians in Ireland continues. Here are the latest examples. As appears in THE LANCET of May 9th, p. 1340, a meeting was held in the Medical Institute, Belfast, on April 30th, to form a North Down Branch of the Irish Medical Association at which Dr. F. P. MacLaughlin and Mr. J. W. Olpherts were present. The attention of the Downpatrick guardians having been called to this circumstance the clerk was directed to write to ask these gentlemen for an explanation why they left their districts without having first notified the board of guardians or the relieving officer. Mr. Olpherts replied that during his few hours' absence on April 30th he left the district in charge of a thoroughly competent medical man and by arrangement; as to why he left his district it was, he wrote, to attend a meeting in Belfast to form a branch of the Irish Medical Association and to defend professional interests. In the other case Dr. E. C. Thompson, M.P., complains in a letter to the Omagh board of guardians that at its last meeting it perpetrated on him a most unmerited insult and one which he bitterly resents. It appears that Dr. Hans B. Fleming, who had been ill four days before the meeting of the board owing to an unfortunate accident, nominated Dr. Thompson as his substitute at the workhouse (a position he had on many previous occasions taken for him) and without a word of explanation the guardians dispensed with him and appointed another medical man in his place. Dr. Thompson says although he had acted on many other occasions for Dr. Fleming without fee, yet upon the first occasion on which, in all fairness, the guardians might have been called on to pay for a substitute for Dr. Fleming they turned Dr. Thompson aside and appointed another medical man. Dr. Thompson attributes this action on the part of the guardians to "excusable ignorance and inexperience" in dealing with such matters and he demands a cheque for £12 12*s.* for his four days' attendance at the workhouse, which the board says it could not entertain the idea of paying. It is to be hoped that Dr. Thompson will press his claim.

Tuberculosis in Ireland.

The committee of the Dublin branch of the National Association for the Prevention of Tuberculosis has recently issued a little book entitled "Consumption and its Prevention," in which the fact is emphasised that while consumption is decreasing in England, Scotland, and Wales there is still a steady increase in Ireland. It appears that between the ages of 24 and 35 years almost one-half the deaths are due to consumption which caused an eighth of the entire death-rate of the country. The authorities of the National Education Office have undertaken to circulate this pamphlet amongst the managers of schools under the board and between 10,000 and 15,000 copies will soon in that way be distributed over Ireland.

May 19th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Alcoholic Cirrhosis and Crypto-tuberculosis.

AT the meeting of the Hospitals Medical Society held on May 1st M. André Jousset gave the result of some experiments which he had made with a view of elucidating the rôle played by Koch's bacillus in the production of hypertrophic alcoholic cirrhosis. He had found that the ascitic fluid which accompanies this kind of cirrhosis very frequently contains bacilli, while the same thing apparently exists with regard to the spleen. In two cases inoculation with hepatic parenchyma after the blood-vessels of the glands had been washed out had caused a guinea-pig into which it was injected to became tuberculous and the same thing happened in another guinea-pig after an injection of spleen-pulp. M. Jousset laid great stress on the importance of these researches which he thought explained in some degree the nature of numerous obscure febrile attacks and also showed that these bacillæmias were curable at least for a time. M. Mosny said that he did not think that the simple presence of Koch's bacillus in the effusions was enough to enable the observer to say that the disease was really tuberculous. For instance, there were very many cases where some disease, such as acute pneumonia or hepatic cirrhosis, lighted up a tuberculosis which had hitherto been only smouldering. In these sort of cases there was a secondary tuberculisation of a diseased condition which was originally of a totally different nature. M. Bezançon agreed with M. Mosny and referred to cases of cancer, of secondary tuberculosis, and of leukæmia complicated with other kinds of infections. He further remarked that it was known to be difficult to differentiate Koch's bacillus from acid-resisting bacilli. M. Chauffard asked whether these acid-resisting bacilli could not closely resemble tuberculous bacilli found in the sputum. The question, he thought, was very important.

Physiological and Therapeutical Action of Cecropia.

At the meeting of the Biological Society held on May 2nd Mr. Gilbert and Mr. Carnot described the investigations which they had made with regard to the physiological and therapeutical properties of a foreign plant called cecropia. The alcoholic extract which they employed was of comparatively low toxicity and could be used in large doses without the production of untoward symptoms. Cecropia, like digitalis, seems to be cumulative in its action, a property which explains the persistence of its effects for a period of several days. It acts on the heart principally by increasing the energy of contraction of the cardiac muscle. As shown on sphygmo-manometric tracings, the amplitude of the pulsations is doubled, tripled, or even increased to a greater degree and this effect persists for a somewhat long time; when poisonous doses are given the pulse becomes slow and its tension is reduced. Cecropia acts on the kidneys as a diuretic and may increase the flow of urine to three or four times the normal amount. In their clinical trials of cecropia Mr. Gilbert and Mr. Carnot gave the alcoholic extract to patients suffering from heart disease and having extreme weakness of the pulse, the usual dose being 30 drops every 24 hours continued for four or five days. On and after the third day there was copious diuresis. A patient who had been passing only 500 cubic centimetres (17½ fluid ounces) of urine daily and had taken cecropia for five days passed 700 cubic centimetres on the second day, 2500 on the third, 3100 on the fourth, 2600 on the sixth, and 2500 on the seventh. The patient's general condition improved at the same time, his dyspnœa was less urgent, and his pulse, which at first could not be counted, became slower and regular. This very remarkable effect was obtained

almost invariably and was comparable to that of digitalis. Cecropia is, however, much less poisonous than digitalis.

Obituary.

Dr. Dreyfus-Brisac, physician to the Hôpital Beaujon, whose death is announced, was born in Strasbourg in 1849 and in 1869 was "externe" at hospitals in that city. He served as a volunteer in the Franco-German war in 1870 and after the annexation of Alsace-Lorraine to Germany he removed to Paris where he took his medical degree in 1878 and became hospital physician in 1880. He took a great interest in questions relating to poor relief and was a member of the conseil supérieur of the Assistance Publique. He was created Chevalier of the Legion of Honour in 1893.

May 19th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Nerve-grafting.

Professor Körte and Professor Bernhardt have recently published in the *Deutsche Medicinische Wochenschrift* a case in which a divided facial nerve was successfully dealt with by grafting it on to the hypoglossal nerve. The patient was a woman, 38 years of age, suffering from inflammation of the left middle ear, which she said had come on after "influenza." Paracentesis of the tympanum had been performed without success and the suppuration and fever continued so that the radical mastoid operation became necessary. In the course of the operation it was found that the anterior wall of the lateral sinus was covered with granulations and that there was pus between the sinus and the bone. In the removal of the diseased bone the sinus was fully exposed to view as far as the jugular foramen and the base of the petrous bone was removed nearly to the carotid canal. The facial nerve was cut through close to the stylo-mastoid foramen and the posterior wall of the cartilaginous portion of the meatus was divided. The large cavity thereby produced was then washed out and drained with strips of iodoform gauze. The peripheral extremity of the facial nerve was now exposed as far as the parotid gland, after which, by means of a curved incision, the hypoglossal nerve was brought into view where the digastric muscle goes across and was traced upwards towards the base of the skull. The peripheral extremity of the facial nerve was then attached laterally to the trunk of the hypoglossal nerve with two fine catgut threads. The wound in the neck was sutured and primary union followed. After the operation there were complete paresis of the left facial nerve and partial paralysis of the left hypoglossal nerve; the tongue when protruded showed a slight deviation to the left and there was also some difficulty in swallowing. The operation was performed by Professor Körte on Dec. 20th, 1901, and on Feb. 3rd, 1902, Professor Bernhardt found that the left facial nerve remained completely paralysed, that with the induced electric current there was no reaction in the area supplied by the left facial and hypoglossal nerves, but that with the battery current there was a retarded "closing contraction." There were, in fact, the typical reactions of degeneration. The deviation of the tongue towards the left and the atrophy of its left side were still obvious. Electricity (constant current) was then applied daily but without apparent result until June 18th, when Professor Bernhardt for the first time observed traces of return of movement in the muscles of the left corner of the mouth. In the beginning of December the reaction of degeneration had disappeared but the reaction to both the battery current and the induced current was only slight. When the patient tried to move her tongue the facial muscles participated in the movement of the tongue and *vice versâ*. There still remained some paresis of the facial muscles on the left side, but voluntary movement of the left corner of the mouth and of the tongue was possible. The case showed that the power of coördinate movement might be restored after nerve-grafting. Similar results have already been obtained by Manasse and by Dr. Robert Kennedy of Glasgow,[1] both of whom united the facial nerve and the spinal accessory. It is of physiological interest to observe that in the above cases the hypoglossal centre or the spinal accessory centre became competent to supply the innervation of the facial muscles which had previously been supplied by a quite different centre.

[1] Proceedings of the Royal Society of London, 1900; Philosophical Transactions, 1901; see also THE LANCET, Feb. 17th, 1900, p. 449.

Sanitation in Health Resorts.

The Prussian Minister of Public Instruction in his capacity of chief of the Government medical department has issued regulations relative to the sanitary arrangements of health resorts and spas. Every health resort in which, or in the vicinity of which, there is no hospital must provide accommodation for the temporary isolation of persons suffering from infectious diseases and must also provide a place suitable for the reception of the bodies of patients who may die. Apparatus for disinfection is kept in the more important health resorts but will now have to be provided by the smaller ones as well. For the latter disinfection by means of formalin is recommended on account of the necessary apparatus being moderate in price and easy to manage. The work of disinfection must be done by a public official and in places where such an appointment has not yet been made the Minister recommends that a suitable person should receive instruction in the duties free of charge in the hygienic institution under the control of a university or a province. In health resorts disinfection must be carried out not only in the cases in which the law already requires it—as, for instance, in scarlet fever, diphtheria, small-pox, and enteric fever—but also in pulmonary tuberculosis. Spittoons are to be provided in public places and buildings and notices are to be displayed requesting persons to refrain from spitting on the floor. Arrangements are also to be made for rendering first aid in accidents; moreover at seaside resorts the necessary requisites for the resuscitation of cases of apparent drowning are to be provided.

May 18th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

The Plague.

THE bubonic plague seems to be dying out in all the States. A case occurred at Geraldton, West Australia, on board a steamer from Singapore and was diagnosed as fever. On arrival at Fremantle the case was pronounced to be one of plague and the vessel was quarantined. No other case has occurred. Rats examined at Brisbane have been found to be infected with plague. Rigid precautions are still taken by the health authorities in all the States to prevent the introduction of the disease and to insure cleanliness and destruction of rats.

Typhoid Fever.

Typhoid fever has been prevalent in some parts of New South Wales, especially Coonamble and Balmain. 135 patients in the Coonamble Hospital are affected with typhoid fever. At Balmain it was proposed that the aldermen themselves should make a house-to-house inspection as the sanitary inspectors were too busy.

Lunacy Administration in Victoria.

In reply to questions in the Legislative Assembly of Victoria the Chief Secretary recently stated that the Victorian asylums had fewer medical officers than the New York State asylums, but the position of many of the American officers was very junior and they were paid low rates of salary. The English asylums had about the same proportion of medical staff as Victoria, but in the former place the medical superintendents were paid very much more than in the latter. A slightly larger number of attendants was allowed in America than in Victoria and the question of providing an adequate staff for the asylums was now under the notice of the Public Service Commissioner. The training of the attendants was in the hands of the medical staff and there was a probationary service of 12 months, during any portion of which time inefficient employés might be removed. As there were very few applicants for the position of junior medical officer it would appear that the medical staff was underpaid or that some other drawback existed, as the juniors actually got more pay than in England or America. Mechanical restraint of patients had in the past been much resorted to, but for the past three years special attention had been given to its reduction. Arrangements had been made for trained female nurses in the male hospitals, but at present the male hospitals at Kew and Yarra

Bend were in charge of men who were there for some years and who were specially appointed as being suitable. Subsequently a deputation from the Medical Society of Victoria waited on the Chief Secretary and urged the necessity for immediate and extensive reform in the treatment of the insane in Victoria. The president, Mr. R. Hamilton Russell, stated that the Medical Society of Victoria regarded it as established that the present asylums in Victoria were lamentably behind the times in many fundamental respects, that there was pressing need for the better treatment of early and doubtful cases of insanity, and that there was an urgent necessity for suitable provision for insane patients whose relatives were able to contribute at higher rates of maintenance as distinct from the large number who by reason of their poverty were legitimate objects of State charity. There was also serious overcrowding, the ill-effects of which were aggravated by structural unfitness and insanitation. The staff, both medical and general, was inadequate and was subject to no proper mode of selection, training, and promotion. This defect was further aggravated by the fact that promotion in all classes went by the rigid rule of seniority, irrespectively of efficiency, and that officials once installed were practically irremoveable. The society believed that the present regrettable condition of affairs would continue so long as responsibility was divided, as it was at present, between inspector, Under Secretary, Chief Secretary, and Public Service Commissioner. The remedy was to place the entire control of all asylums in the hands of a lunacy board of three which should comprise the inspector and the Master in Lunacy, with a third member. For the better treatment of early and doubtful cases of insanity the establishment of a receiving house was essential. It was also considered that there was urgent need for enabling patients who were in a position to pay higher rates of maintenance to be treated in institutions other than those devoted to the cure of the legitimate objects of State charity. Until the Government saw its way to establish an institution for this purpose the society suggested the legalisation of properly licensed private institutions. Professor H. B. Allen said that of every 1000 persons in Australasian asylums 580 were relieved from their infirmity only by death. The other 420 were curable, but the deputation believed that the conditions obtaining in Victorian asylums were not conducive to cure. In reply the Chief Secretary said he did not think that trained attendants were necessary or that those in the Victorian asylums were incompetent. He approved of the establishment of a receiving house and a sum of money had been voted by Parliament for the purpose and a site had been selected at the Royal Park. He also thought that power should be given to the Government to license asylums under private supervision.

Proposed Hospitals for Consumption.

Last year the Government of New South Wales proposed to establish a hospital for consumption at Khuring-gai Chase, near Hornsby. The residents strenuously objected and the proposal was dropped. It has been recently revived and the residents have held an indignation meeting and arranged for a monster deputation to the Premier objecting to the proposal to establish a hospital to accommodate 300 incurable cases of consumption on a site of only 50 acres, close to a large population, while other and better sites were available.—Alderman Dr. W. Camac Wilkinson at a recent meeting of the Sydney city council secured the reference to the proper officers of the council of the question of the power of the council to expend money for the prevention of the spread of consumption, and on the cost of a site and of the erection of a dispensary for the treatment of consumptive cases. His suggestion was for the establishment by the council of such an institution in the city. Such an establishment would, he contended, be the first link in a chain, as it would lead to voluntary notification, which would be followed by instruction to the sufferers and their friends and in turn by inspection and disinfection of premises.

Medical Women and Hospital Appointments.

A deputation from the Progressive Women's Association recently waited on the President of the Board of Health of New South Wales to request that medical women should be appointed in all public institutions. The President replied that he had appointed a medical woman at the Coast hospital, the only institution over which he had control.

Preservatives in Food.

The duty of regulating the use of preservatives in food is laid upon the Board of Health by the Public Health Act of New South Wales and the question has been under consideration for some time. Regulations have now been published dealing with the matter. The substances which are regarded as preservatives are formic aldehyde, boric acid, hydrofluoric acid, sulphurous acid, benzoic acid, and salicylic acid. This list will be added to from time to time. Four of these substances which may be used are given and the proportions in excess of which they may not be used are fixed. The proportion is per pint of liquid or per pound of solid food and the quantity is as follows: sulphurous acid, 1½ grains; salicylic acid, 1 grain; benzoic acid, 1 grain; and boric acid, 10 grains. In regard to sulphurous acid and its preparations, it is provided that it may not be used with milk and its products, canned and bottled foods, fruits and their products (such as jams, &c.), temperance drinks, fresh fish, pickles, and condiments. It may be mixed in the specified proportion or less with beer in all forms and with flesh foods in general. In a similar way the regulation deals with salicylic acid and with benzoic acid, but the list of excepted foods with which these bodies may not be mixed is more comprehensive. They are forbidden in all the articles mentioned, also in preserved fish, all flesh foods, and in beer, cider, and perry as well. Boric acid is forbidden in milk and in cream intended for use as such, but no reference is made in regard to its use in milk and cream in course of manufacture into butter, and it is permitted in bacon and ham and in preserved fish. Boric acid in butter is allowed in proportions not exceeding 35 grains per pound.

Hospital Affairs.

The annual report of the Children's Hospital, Sydney, presented to the twenty-third annual meeting of governors, stated that 560 patients were admitted during the year to the general hospital and that there were 44 remaining from the previous year. Of these 394 were discharged cured, 70 were relieved, 35 were unrelieved, and 63 died. There were 177 admitted to the diphtheria hospital and of them 143 were cured and 23 died. The out-patients numbered 3525, whose attendances were 15,638. Compared with the previous year there was an increase of 68 patients treated in the general hospital. The death-rate was 10·4 per cent., as against 11·1 per cent. last year. In the diphtheria branch there was a decrease of 14, while the death-rate was 12·02 per cent., as against 18·8 per cent. in the previous year.—Under instructions from the Victorian Under Treasurer an important circular has been issued to the committees of hospitals throughout the State, pointing out that the only persons eligible for treatment in hospitals subsidised by the State are:—1. Those who are entirely destitute. 2. Those who are unable to pay the ordinary medical fees but who are in a position to contribute towards their maintenance while in the institution. 3. Accident cases, which are always admissible. Under the provisions of the ticket, therefore, no person (except in cases of accident) who is not in a position to sign one or other of the declarations to the ticket must be admitted for treatment. Under the prescribed ticket the committee of management or some officer deputed by it for the purpose is required to examine the circumstances of each applicant for admission and, where necessary, to fix the amount of contribution. For the general guidance of the committee of management it is laid down that where it is found that the circumstances of an applicant under the declaration of "ability to contribute" warrant a contribution of more than £1 per week being imposed, special inquiries as to whether such applicant is a suitable object for charity should be instituted and precautions taken that no one who can pay the ordinary medical fees shall be admitted for treatment.—During a terrific storm at Townsville, Queensland, the hospital was seriously wrecked. Mr. W. R. Bacot succeeded in removing most of the patients, but five were killed and three persons were seriously injured, including a nurse.

Unregistered Practitioner Fined.

At the Newtown police-court A. M. Keighley was charged with using words implying that he was a legally qualified medical practitioner. The defendant stated that he held a diploma (produced) from the College of Ohio which entitled him to practise in any part of America. In September, 1899, at the court of quarter sessions at Newcastle he was called as an expert medical witness on behalf of the Crown. He had seen the diploma of Charles Ebdon Crommelin referred to in a copy of the Register. It was issued by the same College. Defendant said he went through the Cincinnati

College of Medicine for a regular course and was duly examined and upon that examination he got the diploma. He was gazetted in the *Cincinnati Times*. Previously to that he studied for nine months at the London Hospital School of Medicine and was for 15 months at the Hospice du Sacré Cœur in France and was also for 12 months in a hospital at Bombay. He served six and a half years in broken periods in the study of medicine before receiving the diploma. On Jan. 11th, 1901, he was charged at the Lambton police-court with a breach of the Medical Practitioners Act and was fined £50, but it was afterwards reduced to £10. He had made applications for registration in 1901 and 1902 which were refused. Having given some details of his medical studies the defendant said that at the second trial at Maitland in 1901 he produced the diploma and the jury acquitted him. In reply to the bench he said that the diploma was not in the same state now as when he received it. He had had it framed and the seals had been eaten by silver fish. There had been lettering on the seals. The magistrate was not satisfied that the defendant was entitled to be registered and inflicted a fine of £50 or in default four months' hard labour.

United Friendly Societies' Dispensary, Sydney.

The new buildings for the Sydney United Friendly Societies' Dispensary were officially opened by the Premier on March 11th. The building is of brick, three storeys high, and cost about £2000. Some time ago the societies were compelled by the rapid growth of the work to seek fresh quarters. Parliament voted £1000 to assist in the purchase of a site and the societies interested took up debentures for nearly the whole of the balance, the institute paying interest at the rate of 6 per cent. There are branches of the institution at Woollahra and Redfern. As showing the work done it may be mentioned that there are 110 lodges interested in the institute, which dispenses for 9450 members and their wives and families, and that often 500 prescriptions are dispensed in one day.

Action against a Medical Man; alleged Negligence.

An action was brought against Dr. L. G. Davidson of Balmain in the Sydney District Court on March 24th. Damages were laid at £100. The plaintiff, an old lady who had a wound on the side of her head, complained that she had been improperly treated by medicines containing mercury. The jury returned a verdict in favour of the defendant.

April 11th.

Medical News.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having passed the necessary examinations and conformed to the by-laws have been admitted Members of the College:—

Edgar William Allin, M.D., C.M. Trinity, Toronto, Trinity Medical College, Toronto; John James Armitage, St. Thomas's Hospital; George Ernest Aubrey and Thomas Paul Baldwin, St. Bartholomew's Hospital; James Hamilton Hall Baillie, M.B., Ch.B., B.Sc., New Zealand, Otago University, and University College Hospital; William Bain, Middlesex Hospital; Henry Edgar Barnes, St. Mary's Hospital; Matthew Robert Blake, M.D., C.M. Trinity, Toronto, Trinity Medical College, Toronto; James Landells Blakie, Otago University and Middlesex Hospital; Hugh Frank Bodvel-Roberts, M.A. Camb., L.S.A. Lond., Cambridge University and St. Bartholomew's Hospital; Lawrence Twemlow Booth, University College and Royal Infirmary, Liverpool; William Braddock, L.D.S. Eng., Owens College and Royal Infirmary, Manchester; John Dell Bridger, Guy's Hospital; Guy Leslie Buckeridge, Oxford University and Guy's Hospital; Richard Burges, Harold Lynch Burgess, and Hugh Rose Cran, London Hospital; Dudley William Carmalt-Jones, B.A. Oxon., Oxford University and St. Mary's Hospital; William Brown Clark, King's College Hospital; Arthur Frederick Cole and George Rowland Henderson Crozier, St. Mary's Hospital; Clement Harlow Cox, University of Birmingham; William Bayly Crowfoot, B.A. Camb., Cambridge University and St. Bartholomew's Hospital; Sydney Nelson Crowther, Westminster Hospital; Charles Henry Dawe and John Freeman Douse, Guy's Hospital; Charles Frederick Day, Charing Cross Hospital; William Frank Lydstone Day, B.A. Camb., Cambridge University and St. Mary's Hospital; Oscar Chipman Dorman, M.D., C.M. Dalhousie, University College, Dalhousie, and Middlesex Hospital; David Henriques De Souza, B.Sc. Lond., and Frank Rowe Edmonds, University College Hospital; Ernest Alfred Ellis, B.A. Camb., Cambridge University and London Hospital; Rowly Steavens Wykeham FitzHenry and Peter Gifford Foulkes, Middlesex Hospital; Henry Harper Formby, M.B., B.S. Melb., Adelaide and Melbourne Universities and London Hospital; John William Fox, Sheffield Medical School and London Hospital; William Edmund Gibson, M.B., Ch.B. New Zealand, Otago University and University College Hospital; Ellis Gordon Goldie and Herbert Myer Goldstein, Guy's Hospital; John Leopold Goldstein and Edward Michael William Hearn, London Hospital; William Haywood Hamilton, Reginald Janson Hanbury, and William Charles Frederick Harland, St. Bartholomew's Hospital; Horace Guy Lankester Haynes, Cambridge University and Westminster Hospital; James Willie Heslop, M.B., B.S. Durh., Durham University; James Howard, Owens College and Royal Infirmary, Manchester; Bernard Hudson, M.A. Camb., Cambridge University and St. Bartholomew's Hospital; William Ibbotson, Sheffield Medical School and St. Thomas's Hospital; Charles Wilmot Wanklyn James, General Infirmary, Bristol, and St. Mary's Hospital; Henry Walter James, University College, Cardiff, and St. Bartholomew's Hospital; Thomas Walter Jeffery, London Hospital; Smeeton Johnson and Seymour Whitworth Jones, St. Mary's Hospital; Hector Jones, University College, Cardiff, and St. Mary's Hospital; Charles Russell Keed, Henry Arthur Kellond-Knight, and Charles Samuel Kingston, St. Bartholomew's Hospital; Francis Seymour Kidd, B.A. Camb., Cambridge University and London Hospital; Charles James Izzard Krumbholz, M.B. Lond., University College Hospital; Cecil Lionel Lakin, Charing Cross Hospital; Percival Wilson Leathart, B.A. Camb., Cambridge University and St. Bartholomew's Hospital; Austin Clement Le Rossignol, B.A. Oxon., Oxford University and London Hospital; Eric Craigie Lindsey and Hugh Marcus Major, St. Mary's Hospital; Harry Bertram McCaskie, B.A. Camb., Cambridge University and St. George's Hospital; John Crichton Stuart McDouall, Otago University and University College Hospital; Stuart Donald Mackenzie, M.D., C.M. McGill, McGill College, Montreal; Harold Charles Cory Mann and Gordon Moir, Guy's Hospital; Edward Henry Milner-Moore, St. Mary's Hospital; Harold Joseph Moon, Owens College and Royal Infirmary, Manchester; Clifford Arthur Moore, General Infirmary, Bristol; James Cecil Mottram, University College Hospital; Percy Knowles Muspratt, Cambridge University and London Hospital; Clive Newland, M.B., B.S. Adelaide, Adelaide University and London Hospital; Wilfred Cowan Nimmo, Westminster Hospital; John Howard Le Bouverie Page, St. Mary's Hospital; Philip Noel Panton, B.A. Camb., and Henry Irving Pinches, B.A. Camb., Cambridge University and St. Thomas's Hospital; Frederick Samuel Pope, M.D. Toronto, Trinity Medical College, Toronto, and University College Hospital; Frank Gray Quinby, L.D.S. Eng., University College, Liverpool; John Douglas Pearson, Walter Woolfe Read, Ernest Roberts, and Frederick Cecil Robinson, Guy's Hospital; Bakhshi Isaac Kaham, King's College and Guy's Hospital; Harold Rischbieth, M.A. Camb., Cambridge University and London Hospital; Harold Joseph Robinson, B.A. Camb., Cambridge University and St. Thomas's Hospital; Charles Russ, St. Mary's Hospital; John Noel Sergeant and Frederick William Weeks Smith, St. Thomas's Hospital; Hugh Hamilton Serpell, St. Bartholomew's Hospital; Charles Robert Shattock, L.D.S. Eng., King's College and Guy's Hospital; John Godfrey Slade, M.A. Camb., Cambridge University and St. Bartholomew's Hospital; William Clayton Smales, King's College Hospital; Malcolm William Stewart Smith, University College Hospital; Charles Sigismund Stolterfoth, University College and Royal Infirmary, Liverpool; Francis Talbot, Charing Cross Hospital; Harold Theodore Thompson, M.A. Camb., B.Sc. Lond., Cambridge University and London Hospital; Hugh Watts, St. George's and Guy's Hospitals; Ernest Weatherhead, Cambridge University and London Hospital; Bernard Harry Weld and Harold Charles Winckworth, Guy's Hospital; Edmund George Harrison Weir, M.D., C.M. Toronto, Trinity Medical College, Toronto, and Middlesex Hospital; George Sydney Welham, Charing-Cross Hospital; Edward Aubrey Guy Wilkinson, B.A. Oxon., Oxford University and St. George's Hospital; Frederick Whitaker, B.A. Camb., and Henry Lydiard Wilson, B.A. Camb., Cambridge University and St. Bartholomew's Hospital.

UNIVERSITY OF CAMBRIDGE.—The following medical and surgical degrees were conferred on May 14th:—

Doctor of Medicine.—D. G. Hall, Emmanuel.

Bachelor of Medicine.—W. D. Chapman, Corpus; and A. E. Hodder, King's.

Bachelor of Surgery.—W. D. Chapman, Corpus; T. Guthrie and G. R. Rickett, King's; F. W. Goyder, St. John's; W. T. Scott, Clare; H. Ackroyd, Gonville and Caius; G. A. Wright, Christ's; J. M. Stenhouse, Sidney-Sussex; and E. A. Ellis, Downing.

The last stone of the new Humphry Museum has just been laid and the Downing-street portion of the new medical school building is ready to receive its fittings. For these a sum of some £8000 is still required. It is hoped that the laboratories and lecture-rooms will be ready for occupation during the summer.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following candidates have passed the Primary part of the examination for the Licence in Dental Surgery of the College:—

T. Flanagan, H. D. Griffith, J. W. Harvey, and W. Ogilvy.

UNIVERSITY OF DUBLIN: TRINITY COLLEGE.—At examinations held at Trinity term the following candidates were successful:—

Previous Medical Examination: Anatomy and Institutes of Medicine.—William F. Samuels, Charles E. C. Williams, and Henry H. White.

Physics and Chemistry.—Thomas Creaser and William J. Thompson.

Botany and Zoology.—Maurice Fitz Gibbon, Herbert Wright, Thomas W. E. Henry, John W. Lane, William J. Thompson, Charles B. Jones, and Cecil R. W. Stoney.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* Dr. Paul Lazarus has been recognised as *privat-docent* of Medicine and Dr. Kurt Strauch as *privat-docent* of Forensic Medicine.—*Bonn:* Dr. Rosemann of Greifswald has been appointed to the Physiological Institute to replace Dr. Bleibtreu who goes to Greifswald.—*Budapest:* Dr. Michael Mohr has been recognised as *privat-docent* of Pediatry.—*Cadiz:* Dr. Leonardo Rodrigo Lavin has been appointed Professor of Physiology.—*Gratz:* Dr. Theodor Müller has been recognised as *privat-docent* of Hygiene.—*Leipsic:* Dr. von Criegern has been recognised as *privat-docent* of Medicine.—*Malta:* Dr. Carmelo Mifsud has been appointed Professor of Medicine in succession to Dr. Galea who has resigned.—*Vienna:* During the building of the new hygiene institute the lectures are being delivered by Dr. Schattenfroh, extraordinary professor. It is expected that Professor Flügge of Breslau will be appointed to the chair of Hygiene when the institute is finished, which will not be until next year.—*Würzburg:* Dr. Johannes Sobotta, *privat-docent* of Anatomy, and Dr. Johannes Müller, *privat-docent* of Medicine, have been promoted to Extraordinary Professorships.

THE MEDICAL GOLF TOURNAMENT.—The annual medical golf tournament will be held on Thursday, May 28th, on the links of the Hanger Hill Golf Club at Ealing, by kind permission of the committee of that club. The tournament will be under the same rules as last year—viz., 18 holes, match play, *v.* Bogey in the usual two handicap classes, (1) 12 and under; (2) over 12. Members of the Hanger Hill Golf Club will deduct two from their handicap and no match can start after 3 P.M. There will be a foursome sweepstake *v.* Bogey in the afternoon. Players arrange their own matches or can apply for a partner to the honorary secretary. Entries, stating lowest handicap and inclosing 5*s.* entrance fee, to be made by May 26th to the honorary secretary, Mr. Rolf Creasy, Windlesham, Surrey.

UNIVERSITY COLLEGE, LONDON.—At the session of the council of University College on May 4th the Liston gold medal for clinical surgery was awarded to Mr. G. E. O. Williams. Mr. Bilton Pollard was appointed additional examiner for the Atkinson Morley scholarship. Dr. W. H. Corfield was appointed a delegate to represent University College at the Liverpool Congress of Public Health. In consequence of ill-health Dr. G. V. Poore has found it necessary to resign his chair of Medicine and Clinical Medicine and his physicianship to University College Hospital. The council, in accepting the resignation, unanimously adopted a resolution testifying to its high appreciation of the services which Dr. Poore had rendered to the college and hospital during the past 35 years and especially expressing its great obligation to him for the active part which he took in bringing about the rebuilding of the hospital and in preparing the design for the new building.

ASYLUM WORKERS' ASSOCIATION.—At the annual meeting of this association held on May 14th at 11, Chandos-street, London, W., Sir James Crichton Browne, the President, being in the chair, the report for the year 1902 was presented by the honorary secretary (Dr. G. E. Shuttleworth) and its adoption was moved by the chairman in an interesting address. He stated that the association had increased its membership to 4902 and he trusted that 5000 might henceforth be regarded as its minimum strength. With reference to lunacy legislation, the executive committee had urged on the powers that be the claim of the public asylum service to adequate and assured pensions, not only in the interests of officials but of the patients themselves, whose welfare very largely depended upon the efficiency and stability of the service. The "Homes of Rest" fund had done good work in helping sick and weary workers to recuperate, and the institution of prizes for the study of standard works of fiction (in which Mr. Rider Haggard had kindly promised personal support) helped to create interests outside their sometimes depressing duties. Medals had been granted for long and meritorious service in asylum nursing and this year the two gold medals (for more than 35 years' service) had been awarded to Mr. C. H. Marshall of the Eastern Counties Asylum and Miss M. A. Buckle of the East Sussex Asylum and the two silver medals (for more than 30 years' service) to Mr. J. Lynch of the Cork District Asylum and Miss A. E. Jackson of Bethlem Royal Hospital. A memorial brass had been provided for Colney Hatch Asylum to commemorate the heroic conduct of the staff on the occasion of the recent calamitous fire.

VACCINATION GRANT.—Mr. George Fisher, M.R.C.S. Eng., who has received the vaccination grant for the fourteenth consecutive time in the No. 6 "Albury District of the Guildford Union," was appointed public vaccinator on April 11th, 1874.

MEDICAL HIGH CONSTABLE.—Mr. Cornelius Biddle, L.R.C.P. Lond., M.R.C.S. Eng., at the unanimous request of the Merthyr Tydvil bench of magistrates, has decided to hold the office of high constable for Caerphilly Higher for another year.

"The Londoners" Amateur Operatic and Dramatic Society, of which Sir Frederick Bridge, M.V.O., is President, will give four performances of the successful musical comedy *Florodora* at the Great Queen-street Theatre, London, W.C. (by kind permission of Mr. W. S. Penley), on Thursday and Friday, May 28th and 29th, at 8 P.M., and on Saturday, May 30th, at 2.30 P.M. and 8 P.M., in aid of Pearson's Fresh Air Fund. The honorary acting and business manager is Mr. Townley Searle who writes from the theatre and from whom tickets may be obtained. He states that there are no expenses of management and that every penny is spent on the children.

THE LONDON HOSPITAL QUINQUENNIAL APPEAL.—At a meeting held at the Poplar Town Hall, under the presidency of the Mayor of Poplar, on May 14th, in support of the London Hospital Quinquennial Appeal, the Hon. Sydney Holland, in the course of an address, said that it required £300 a day to carry on the work of the London Hospital. It was sad, he said, to contemplate that the working classes of London displayed a great want of interest in hospitals and contributed to hospital charities less than did the workmen of any other town. If such an institution as the London Hospital failed it would be difficult to estimate the resulting misery.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, MAY 14TH.

Escape from a Small-pox Hospital.

Mr. WEIR asked the President of the Local Government Board if he would state in what circumstances a man named Costello of Latimer-street, Liverpool, recently escaped from Fazakerley Small-pox Hospital; and, in view of the danger which may result therefrom, what steps, if any, he proposed to take in the matter.—Mr. LONG replied: I am informed that on the evening of March 19th the patient referred to, who up to that time had shown no indication whatever of mental derangement, left his ward and went into the grounds of the hospital. He was followed by the hospital officials and found on land belonging to the corporation adjoining the hospital grounds. It may be mentioned that the hospital site is 130 acres in extent. The incident was not attended with any ill effects either to the man or to anyone else. I do not propose to take any steps in the matter.

Overcrowding in Liverpool.

Mr. WEIR asked the President of the Local Government Board whether he was aware that out of 34 houses in Great George-square, Liverpool, 11 were habitually used as emigrant lodging houses and are overcrowded; that when the houses Nos. 11 and 18 Great George-square were visited on March 28th last by Inspector Ball he found at the former house no fewer than 88 persons in excess of the regulation number, while at the latter house he found 61 in excess; and, seeing that the houses are the property of the corporation of Liverpool, whether he would consider the expediency of communicating with that body on the subject, having regard to the fact that an epidemic of small-pox has been raging at Liverpool for upwards of six months.—Mr. LONG replied: I have communicated with the town clerk of Liverpool on this subject and he informs me that in Great George-square there are nine houses registered for the accommodation of emigrants. None of these are in the possession of the corporation. It is stated that the houses are of a high class of respectability and that the emigrants using them are chiefly Scandinavians who are cleanly and well-conducted people. The houses are stated to be kept scrupulously clean. They are under the supervision of the corporation and are visited daily and frequently by night also. The unexpected arrival of a large body of emigrants on March 28th resulted in an excessive number being received in Nos. 11 and 18. Proceedings were taken by the corporation in respect of the overcrowding thus caused and a fine was imposed in each case. As regards small-pox I am assured that the disease is very rarely introduced into Liverpool by emigrants who, as a rule, are vaccinated before starting. I am glad to add that the outbreak at Liverpool is stated to be subsiding, a result which appears to be largely owing to the strenuous action taken by the corporation.

Medical Officers of Militia and Volunteers.

Major RASCH asked the Secretary of State for War if he would explain why those medical officers of the Militia and Volunteers whom the War Office had employed continuously for the last three years or

more in lieu of Royal Army Medical Corps officers, and whose services it still found necessary, through the dearth of regular medical officers, to retain for the same duties, no longer receive the pay and allowances of their corresponding army rank but have been reduced to a salary of £270 per annum, a reduction in the case of a lieutenant of more than £50, and in that of a captain of nearly £100 per annum.—Mr. BRODRICK replied: These officers have been demobilised and are now employed as civil medical practitioners. They act as such entirely at their option and it is impossible to treat them differently from other civil medical practitioners.

MONDAY, MAY 18TH.

The Contamination of Oyster Beds.

Mr. SEYMOUR ORMSBY-GORE asked the President of the Board of Trade if in view of the cases of typhoid fever caused by oysters reared in insanitary beds, he would consider the advisability of appointing an inspector of oyster beds.—Mr. GERALD BALFOUR replied: The question of preventing the spread of typhoid fever is primarily one for the sanitary authorities, and I do not think that the appointment of a special inspector of oyster beds by the Board of Trade is necessary. I may, however, mention that the Board of Trade is considering with the Local Government Board whether in particular cases joint action might not be taken by the local sanitary and fishery authorities with a view of preventing the discharge of sewage in the neighbourhood of oyster beds, or where that is impossible of inducing the owners to move the oysters to another site.

Tampering with Whisky and Brandy.

Sir EDWARD STRACHEY asked the Chancellor of the Exchequer whether he was aware that German spirit made from potatoes and roots was imported into this country and sold as Scotch or Irish whisky and that under the existing methods of supervision any potable spirit, German or otherwise, could be made up and sold as genuine whisky; and that English spirit made largely from molasses was shipped from this country to France and returned and sold as brandy; and if so whether he would consider the advisability of appointing a committee of inquiry into the matter.—Mr. RITCHIE replied: I am aware that allegations in the sense indicated have been made, but I have no official knowledge that would enable me to confirm or to refute such allegations. The matter was very fully examined by the Select Committee of the House of Commons in 1890 and I doubt whether any advantage would result from a fresh inquiry.

Cost of Public Vaccination.

Sir THOMAS ROE asked the President of the Local Government Board if he would cause a return to be issued showing the total cost of public vaccination charged on the poor-rate for England and Wales for the two periods of four years—viz., 1895 to 1898 and 1899 to 1902.—Mr. LONG replied: The particulars referred to are shown in Part I. of the Local Taxation Returns which are published annually. The returns for the year ended Lady Day, 1902, are in preparation, and Part I. will, I hope, shortly be ready for issue. It does not seem necessary that a special return should be granted.

Scarlet Fever at the Duke of York's School.

Mr. THOMSON asked the Secretary of State for War whether, in view of the fact that the epidemic of scarlet fever at the Duke of York's School still continued and that the sanitary authority of the borough of Chelsea, although it had been called upon to remove and to disinfect bedding and clothes, had been refused information on the extent of the epidemic and not allowed to enter the school, he would instruct the officials of the school to give entrance to the representatives of the sanitary authority of the borough.—Mr. BRODRICK replied: Nothing is known of any such refusal to give information to the sanitary authorities of the borough. On the contrary the medical officer of the school has been working in coöperation with the borough medical officer of health. It has been decided to remove all the boys who are free from infection and to encamp them for a time.

WEDNESDAY, MAY 20TH.

Infectious Hospital in Conway.

Mr. HERBERT ROBERTS asked the President of the Local Government Board whether his attention had been called to the proposed erection by the Conway rural district council of an infectious diseases hospital on a site abutting on the main road from Llandudno and Colwyn Bay up the Vale of Conway to Llanrwst; and whether, in view of the traffic along the road in question and having regard to public safety, the Local Government Board would take steps to induce the Conway guardians to adopt a more suitable site.—Mr. GRANT LAWSON, who replied, said: I have made some inquiry on this subject and I am informed that the rural district council proposes to erect an infectious hospital at Glan Conway. It is stated that the site, which has been approved by the medical officer of health, is as near the centre of the district as possible and that it would not involve any patient being taken through any town or populous part in going to the hospital. I am also informed that the main road referred to in the question has less traffic than the other main roads in the district. It is further stated that there are no farms or dwelling houses in close proximity to the site and that the hospital would not in any way be detrimental to the interests of the district. It does not appear whether it is intended to borrow money in connexion with the proposed hospital but if it is my sanction will be necessary and before giving it I should cause a local inquiry to be held.

BOOKS, ETC., RECEIVED.

ARNOLD, EDWARD, 37, Bedford-street, W.C.

A Class-book of Botany. By G. P. Mudge, A.R.C.Sc. Lond., F.Z.S., Lecturer on Botany and Zoology at the London School of Medicine for Women (University of London), W.C., and Arthur J. Masien, F.L.S., Lecturer on Botany at the Woolwich Polytechnic. Price 7s. 6d.

CHURCH AGENCY, LIMITED, 33, Strand, W.C.

The Ecclesiastical Supplement to the "Premier" Telegraphic Code. Price 25s. net.

DUCKWORTH AND CO., 3, Henrietta-street, Covent-garden, W.C.

A Text-book of Plant Diseases caused by Cryptogamic Parasites. By George Massee, F.L.S., Principal Assistant (Cryptogams), Royal Herbarium, Kew. Second edition. Price 5s. net.

FISCHER, GUSTAV, Jena.

Lehrbuch der Klinischen Hydrotherapie für Studierende und Aerzte. Von Dr. Max Matthes, a. o. Professor und Direktor der Medizinischen Poliklinik an der Universität Jena. Mit Beiträgen von Stabsarzt Dr. Paul Cammert, Prof. Dr. Ernst Hertel, und Prof. Dr. Felix Skutsch. Price, paper M.8; bound M 9.

GLAISHER, HENRY J., 57, Wigmore-street, W.

Preparations for Operations in Private Houses. (Written for the Nurses' Cooperation.) By Cuthbert S. Wallace, M.B., B.S. Lond., F.R.C.S. Eng., Assistant Surgeon to St. Thomas's Hospital and to the East London Hospital for Children. Price 1s. net.

G. P. PUTNAM'S SONS, 24, Bedford-street, W.C.

Short Talks with Young Mothers on the Management of Infants and Young Children. By Charles Gilmore Kerley, M.D., Lecturer on Diseases of Children, New York Polyclinic Medical School and Hospital. Price 5s.

HARTUNG UND SOHN, Leipzig.

Operationsübungen an der Leiche. Ein Leitfaden für Studierende. Von Dr. Erich Bennecke, a. o. Professor, Leiter der Chirurgischen Universitäts-Poliklinik in der Kgl. Charité zu Berlin. Mit einem Vorwort von Prof. Dr. F. König, Geh. Med.-Rat. Price M.4.

Die Krankheiten der Speiseröhre. Von Dr. med. Fr. Schilling, Spezialarzt für Verdauungs- und Stoffwechsel Krankheiten zu Leipzig. Price M.1.80.

HIRSCHWALD, AUGUST, Unter den Linden, 68, Berlin, N.W.

Die Traumatische Spätapoplexie. Von Prof. Dr. Rob. Langerhans (Berlin). Price M 2.

Ueber die Ursachen, das Wesen und die Behandlung des Klumpfusses. Von Dr. Julius Wolff, weil. Geh. Medicinalrath, a.o. Professor der Chirurgie und Director der Königl. Universitäts-Poliklinik für orthopädische Chirurgie zu Berlin. Herausgegeben von Professor Dr. Georg Joachimsthal. Price M.4.

Lehrbuch der Allgemeinen Pathologie und Therapie innerer Krankheiten. Von Prof. Dr. Adolf Schmidt, Oberarzt am Stadt-kankenhause Friedrichstadt zu Dresden. Price M.10

JACK, T. C. and E. C., 34, Henrietta-street, W.C., and Edinburgh.

The Art of Cooking for Invalids in the Home and the Hospital. By Florence B. Jack. Third edition, revised and enlarged. Price not stated.

Breakfast and Savoury Dishes. By Florence B. Jack. Price 1s.

Hot Puddings, Soufflés, and Fritters. By Florence B. Jack. Price 1s.

J. L. MURPHY PUBLISHING CO., Trenton, N.J., U.S.A.

Twenth-sixth Annual Report of the Board of Health of the State of New Jersey, 1902. Price not stated.

KIMPTON, HENRY, 13, Furnival-street, Holborn, E.C.

A Treatise on Diseases of the Eye, Nose, Throat, and Ear. For Students and Practitioners. By Various Authors. Edited by William Campbell Posey, A.B., M.D., Professor of Ophthalmology in the Philadelphia Polyclinic, and Jonathan Wright, M.D., Attending Laryngologist to King's County Hospital. Two Vols. Price 32s. net.

The Diseases of Infancy and Childhood. Designed for the Use of Students and Practitioners of Medicine. By Henry Koplik, M.D., Attending Physician to the Mount Sinai Hospital. Price 21s. net.

The Diseases of the Nose, Throat, and Ear. By Charles Prevost Grayson, A.M., M.D., Lecturer on Laryngology and Rhinology in the Medical Department of the University of Pennsylvania. Price 18s. net.

Anatomy. A Manual for Students and Practitioners. By William H. Rockwell, jr., M.D., formerly Assistant Demonstrator of Anatomy in the College of Physicians and Surgeons, Columbia University, New York. Series edited by Born B. Gallaudet, M.D., Demonstrator of Anatomy and Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York. Price 10s. net.

LEWIS, H. K., 136, Gower-street, W.C.

Practical Pharmacy and Prescribing for Students of Medicine, being the Course in Use at St. Bartholomew's Hospital. By James Calvert, B.A., B.Sc., M.D. Lond., F.R.C.P., Lecturer on Materia Medica, Pharmacology, and Therapeutics to St. Bartholomew's Hospital. Second edition. Price 4s. 6d.

Public Health Laboratory Work. By Henry R. Kenwood, M.B., D.P.H., F.C.S. Part VII., dealing with Public Health Bacteriological Work, contributed by W. G. Savage, M.D., B.Sc., D.P.H., Medical Officer of Health, Colchester. Third edition. Price 10s. 6d.

LIBRAIRE MALOINE, 23-25, Rue de l'Ecole-de-Médecine, Paris.

Annuaire des Eaux Minérales, Stations Climatiques et Sanatoriums de la France et de l'Etranger. 1903. Par le Docteur H. Morice, Rédacteur en Chef de la Gazette des Eaux. Price 1 fr. 50.

MACMILLAN AND CO., LIMITED, London.

Handbook of Climatology. By Dr. Julius Hann, Professor of Cosmical Physics in the University of Vienna and Editor of the *Meteorologische Zeitschrift*. Part I. General Climatology. Translated by Robert de Courcy Ward, Assistant Professor of Climatology in Harvard University. Price 12s. 6d. net.

SAMPSON LOW, MARSTON AND CO., LIMITED, St. Dunstan's House, Fetter-lane, E.C.

A Complete System of Nursing. Written by Medical Men and Nurses. Edited by Honnor Morten, L.O.S. Diploma. Second edition. Price 7s. 6d. net.

VIGOT FRÈRES, 23, Place de l'École-de-Médecine, Paris.

Technique et Indications des Médications Usuelles. Par G. Lemoine, Professeur de Clinique Médicale à la Faculté de Lille. Price 7 fr.

Le Massage Abdominal. Par le Docteur de Frumerie, de la Faculté de Médecine de Paris. Préface de M. le Professeur Gilbert. Price 2 fr.

WRIGHT, J., AND CO., Bristol.

The Pocket Therapist: a Dictionary of Disease and its Treatment. By Thomas Stretch Dowse, M.D. Aberd., F.R.C.P. Edin. Third edition. Revised and enlarged. Price 6s. 6d. net.; or interleaved 8s. 6d.

WYNKOOP HALLENBECK CRAWFORD CO., of Lansing, Mich. (State Printers).

Thirty-fourth Annual Report of the Secretary of State on the Registration of Births and Deaths in Michigan for the year 1900. Fred M. Warner, Secretary of State. Edited by Cressy L. Wilbur, M.D., Chief of the Division of Vital Statistics.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.

BARBER, C. H., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon at King's College Hospital.

BIRKBECK, LAWRENCE HENRY CARR, M.B., B.Ch. Oxon., has been appointed Honorary Surgeon to the Taunton and Somerset Hospital.

BEVILLE F. W., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Act for the Denham District of the county of Buckingham, and also for the Uxbridge District of the county of Middlesex.

BRACEY, WILLIAM EDELSTEN, L.R.C.P. & S. Edin., L.F.P.S Glasg., has been appointed Medical Officer and Public Vaccinator for the Westmore District of the Axbridge Union (Somerset).

DAY, H. B., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Physician at King's College Hospital.

DUNKERTON, N. E., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon at King's College Hospital.

FARRANT, SAMUEL, M.R.C.S., L.S.A., has been appointed Honorary Consulting Surgeon to the Taunton and Somerset Hospital.

GRANT, CHARLES CHRISTIE, M.B., C.M. Glasg., has been appointed District Medical Officer for Glyncorrwg by the Neath (Glamorganshire) Board of Guardians.

GRAY, WALTER GORDON, L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer of Health for the Holsworthy (Devon) Urban District.

HARRIS, JOHN HENRY, M.D. Durh., M.R.C.S., L.S.A., D.P.H. Cantab., has been appointed Port Medical Officer by the Dartmouth and Totnes Port Sanitary Authority.

LEE, R. H., M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Physician at King's College Hospital.

MARSHALL, A. T., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon at King's College Hospital.

PRYTHERCH, H., L.R.C.P. Edin., M.R.C.S., has been appointed Certifying Surgeon under the Factory Act for the Beaumaris District of the county of Anglesey.

SMALES, W. C., M.R.C.S. L.R.C.P. Lond., has been appointed Assistant House Accoucheur at King's College Hospital.

TURTLE, G. DE B., M.B. Durh., M.R.C.S., L.R.C.P. Lond., has been appointed House Accoucheur at King's College Hospital.

WADE, NOEL NATHANIEL, M.B., Ch.B. Edin., has been appointed Assistant House Surgeon to the Cardiff Infirmary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BETHLEM HOSPITAL.—Two Resident House Physicians (unmarried) for six months. Honorarium at rate of £25 each per quarter, with board and residence.

BRECON AND RADNOR ASYLUM, Talgarth, R.S.O. Assistant Medical Officer, unmarried. Salary £140 per annum, with apartments, board, attendance, and laundry.

BRIGHTON THROAT AND EAR HOSPITAL, Church-street, Queen's-road.—Non-resident House Surgeon for six months, renewable. Salary at rate of £75 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—House Surgeon. Salary at rate of £50 per annum, with board and residence.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House Surgeon, unmarried. Salary £80 per annum, with board, lodging, and washing.

CHARING CROSS HOSPITAL.—Assistant Physician.

CHICHESTER INFIRMARY.—Honorary Medical Officer. Also Surgeon Dentist.

DENBIGHSHIRE INFIRMARY, Denbigh.—House Surgeon. Salary £100, with board residence, and washing.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—House Surgeon. Salary £100 per annum. Also Assistant House Surgeon. Salary £70. Both with apartments, board, and laundry.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Physician for six months. Honorarium of £25, with board and residence. Also Resident Medical Officer. Salary £100 per annum, with board, residence, and washing.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Second Assistant Medical Officer, unmarried. Salary £200 a year, with board, lodging, washing, and attendance.

GRAVESEND HOSPITAL.—House Surgeon. Salary £100 per annum, with board and residence.

HARRIS, PARISH OF.—Medical Officer and Public Vaccinator. Salary £110.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—House Surgeon, unmarried. Salary £75 per annum, with residence, board, and washing.

HEREFORD COUNTY AND CITY ASYLUM.—Junior Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing.

HOLLOWAY SANATORIUM HOSPITAL FOR THE INSANE, Virginia Water, Surrey.—Junior Assistant Medical Officer. Salary £175 per annum, with board, lodging, and attendance.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Physician, unmarried, for six months. Salary £20, with board and residence.

HOSPITAL FOR WOMEN, Soho-square, W.—House Physician for six months; salary £50 for that period. Also Assistant Physician. Also Clinical Assistants.

INDIAN MEDICAL SERVICE, India Office, London, S.W.—Examination for not less than Sixteen Commissions in His Majesty's Indian Medical Service.

LIVERPOOL STANLEY HOSPITAL.—Senior House Surgeon. Salary £100 per annum, with board, residence, and washing.

LONDON HOSPITAL, Whitechapel, E.—Assistant Obstetric Physician.

MIDDLESEX HOSPITAL, W.—Director of Cancer Research Laboratories. Salary £500, rising to £800 per annum. Also Research Scholarship, value £105 per annum. Also Obstetric Registrar.

NEWCASTLE-UPON-TYNE CITY ASYLUM, Gosforth.—Assistant Medical Officer, unmarried. Salary £140 a year, rising to £160, with apartments, board, and laundry.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Assistant House Surgeon. Salary £50 per annum, with board, residence, and washing.

NORFOLK AND NORWICH HOSPITAL.—House Physician, unmarried. Salary £80 per annum, with board, lodging, and washing.

NORTHAMPTON GENERAL HOSPITAL.—Assistant House Surgeon, unmarried. Salary £75 per annum, with apartments, board, attendance, and washing.

NORTH DEVON INFIRMARY, Barnstaple, Devon.—House Surgeon. Salary £80 per annum, with board, residence, and washing.

PORTSMOUTH BOROUGH ASYLUM.—Assistant Medical Officer, unmarried. Salary £120 to £150 per annum, with board, lodging, &c.

ROYAL ALBERT HOSPITAL, Devonport.—Resident Medical Officer, unmarried. Salary £100 per annum, with board and lodging.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Resident House Surgeon. Salary £100, with board, residence, and laundry.

ST. MARY'S HOSPITAL FOR SICK CHILDREN, Plaistow, London, E.—Resident Medical Officer, unmarried. Salary £100 per annum, with board, residence, and laundry. Also Assistant Resident Medical Officer, unmarried, for six months. Salary at rate of £80 per annum, with board, residence, and laundry.

SALISBURY INFIRMARY.—House Surgeon. Salary £100 per annum. Also Assistant House Surgeon. Salary £75 per annum, with apartments, board, and washing. Both unmarried.

SEAMEN'S HOSPITAL SOCIETY ("DREADNOUGHT").—Senior House Surgeon and Registrar. Salary £100 per annum, with board and residence.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Assistant House Surgeon for six months, renewable. Salary at rate of £50 per annum, with board and residence.

SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeon, unmarried, for six months, renewable. Salary at rate of £70 per annum with residence, board, and washing.

SWANSEA GENERAL AND EYE HOSPITAL.—Two Resident Medical Officers. Salary £75 each, with board, apartments, washing, and attendance.

UNIVERSITY OF GLASGOW.—Additional Examiner for Degrees in Arts, Science, and Medicine, with special reference to Zoology. Salary £50 per annum, with travelling and hotel expenses.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Honorary Physician or Surgeon-Accoucheur.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician and House Surgeon, both for six months. Board and lodging provided.

YORK COUNTY HOSPITAL.—House Physician. Salary £100 per annum, with board, residence, and washing.

Births, Marriages, and Deaths.

BIRTHS.

ANDREWS.—On May 15th, at Tonbridge, Kent, the wife of H. A. Andrews, M.R.C.S., of a daughter.

CARRUTHERS.—On May 18th, the wife of S. W. Carruthers, M.D. Edin., of a daughter.

CAZALET.—On May 17th, at Sutton, Surrey, the wife of Grenville William Cazalet, L.R.C.P. Lond., M.R.C.S., of a son.

FINLEY.—On May 13th, at West Malvern, the wife of Harry Finley, M.D. Lond., of a son.

GLOVER.—On May 14th, at 17, Belsize-park, N.W., the wife of Lewis G. Glover, M.D., of a daughter, who only survived her birth a short time.

DEATH.

SKINNER.—On May 15th, at Dyne-road, Brondesbury, N.W., David Shorter Skinner, M.D. Brux., Medical Officer of Health for Willesden, aged 67 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

FRIENDLY SOCIETIES AND THE MEDICAL AID QUESTION.

UNDER this heading we read an account in the *Heanor Observer* of May 15th of a meeting which recently took place at Heanor and which was addressed by a Mr. W. Turton. Mr. Turton's address was the usual kind of thing, urging upon the pious members of friendly societies the necessity of union lest the impious medical men should dare to form a union of their own. We only allude to a rather silly address because of the frank manner in which Mr. Turton states what he considers to be the proper relations between a medical man and his patients. The medical officer of a medical aid association "is allowed no private practice whatever and in cases of neglect complaint is made to the managing committee who deals with it in a much different manner than a complaint against your present lodge surgeon can be dealt with. In one case the medical officer is your servant. In the other case he is your master and you are only a small item in his practice." We trust that no medical man will place himself in the humiliating position which Mr. Turton thinks that he should occupy. We have always asserted that the desire of the medical aid associations was to have their medical attendant as their servant, to cut down his pay, to place him under the orders of a lay committee, and to dismiss him at will. We have read speeches in which this view was contradicted by supporters of the medical aid associations and in which the cordial relations that should exist between the associations and their medical men were much insisted upon. We never believed in these cordial relations nor does Mr. Turton.

RESTRICTION ON HOSPITAL RESIDENTS STARTING IN PRACTICE.

To the Editors of THE LANCET.

SIRS,—May I request readers of THE LANCET kindly to let me know the names of towns where hospital residents are appointed subject to the condition that they shall not start in practice before the lapse of a certain time? I believe that there are a good many. Letters addressed to me, care of THE LANCET, will be gratefully acknowledged by me.

I am, Sirs, yours faithfully,

May 20th, 1903. X. Y.

DISTINCTIVE MARKS FOR MEDICAL MEN.

To the Editors of THE LANCET.

SIRS,—Some time ago a suggestion was made that medical men should wear some distinguishing style of dress or badge to signify their public calling. As this has fallen flat, so far as I know, I beg to re-direct attention to the subject. In the interest of the public it is often important that a medical man should be recognised by strangers. To give an illustration. A short while since an accident occurred in one of the Midland towns. A crowd, of course, quickly gathered and amongst them an unostentatious but noted surgeon who, on seeing a well-dressed gentleman in a frock-coat and silk hat rush up and take charge of the injured man, withdrew, leaving the case—as he supposed—in the hands of a fellow medico. But it was not so. When the patient rallied the policeman tried to obtain a fee from the friends for the supposed medical man and was considerably taken aback on asking his name to receive the business card of a traveller for a commercial firm. The traveller told me that he felt in great trepidation as to the results of his treatment and the police and crowd were deceived in supposing that a responsible person had taken charge of the case.

I would suggest an enamelled badge bearing a cross, varied according to the branch of work of the wearer—e.g., a gold cross on a blue or red field for a consulting physician or surgeon and a white cross on a blue and red ground for a general practitioner, with a rose, thistle, or shamrock to designate the place of registration. I inclose some designs in explanation.

I am, Sirs, yours faithfully,

May 16th, 1903. SIMPLEX.

*** Our correspondent incloses some designs, drawn on heraldic model, for badges to be worn presumably on the watch chain. The devices are ingenious, for anyone knowing the code could detect at a glance the exact degrees or diplomas of the badge-bearer.—ED. L.

SUTURE OF A WOUND OF THE HEART.

A RECENT number of the *Gazzetta degli Ospedali e delle Cliniche* contains an account of a successful case of suture of wound of the heart which was described by Dr. Isnardi at a meeting of the Royal Academy of Medicine of Turin held on Jan. 16th. The patient, a man, 26 years of age, was stabbed in the left side of the chest on Feb. 8th, 1902, and was carried to a hospital in an apparently dying state with the knife still in the wound. On resection of the fourth and fifth ribs the pericardium was found to be punctured and full of blood. The wound in the heart could not be seen on account of the profuse hæmorrhage, but Dr. Isnardi could feel it with his fore-finger and under the guidance of this finger he passed a wire suture through its edges. The heart was then gently drawn forward by the free ends of the suture and the hæmorrhage was completely stopped by the application of three sutures. It could then be seen that the wound was in the wall of the right ventricle and was 0·6 inch in length. Empyema afterwards set in, due to the wounding of the left pleura in the course of the operation and another operation had to be performed on this account. For more than a month the heart could be seen beating, both it and the left pleural cavity being exposed. Daily dressings and gauze drainage were employed. The man recovered perfectly and he had been already for some months following his employment as a mason at the time of Dr. Isnardi's communication to the Academy.

A POINT IN THE WORKING OF THE VACCINATION ACT.

To the Editors of THE LANCET.

SIRS,—A curious piece of red tape has come into my experience in the working of the Vaccination Act. Ever since its introduction I have vaccinated all children voluntarily brought to the surgery and charged a fee of 2*s.* 6*d.* in each case. These fees have always been paid till now. Those charged in my last account have been struck out on the ground that I have no claim, but the fees for revaccination at the surgery are still allowed. I could have sent the children home, followed and vaccinated them, and charged a fee of 5*s.*, but this would seem to anyone too grasping and petty in a public officer.

As a sincere admirer of the new system, the working of which I have watched with great satisfaction, I am much exercised as to the reason of my having to forfeit these fees. Is it the intention of the Act to discourage all surgery vaccinations as tending to propagate infection? No other explanation occurs to me. I find that another officer of our board has had a similar experience.—I am, Sirs, yours faithfully,

May 12th, 1903. ASTONISHED VACCINATOR.

M.R.C.S., L.R.C.P., L.S.A.—It is very advisable to make sure that the methods of vaccination adopted are efficient. If our correspondent is certain that he leaves nothing undone, either in the matter of lymph or in the matter of operation, he might complain to the Local Government Board.

A New Englander writes with the cocksureness of complete ignorance. Exhaustive experiments on the lower animals as well as the personal experiences of many observers have shown all theories with regard to the determination of sex of the kind that he would promulgate to be completely fallacious.

W. M.—The instrument in question has not been submitted to medical inspection. The claims made for it in the lay press are obviously ridiculous.

Enquirer should consult a solicitor and show to him copies of all the documents signed with reference to the engagement, especially the bond.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (25th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.).

TUESDAY (26th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.) London Throat (9.30 A.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.).

WEDNESDAY (27th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M).

THURSDAY (28th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat, (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

FRIDAY (29th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.).

SATURDAY (30th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (25th).—ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (20, Hanover-square, W.).—7 P.M. Council. 8 P.M. Casual Communications:—Mr. G. Brunton: (1) A Rapid Method of Constructing and Fitting all Gold Crowns at the Chair-side; (2) A New Gag; (3) A New Mouth Mirror.—Mr. F. Morley: A Case of Hæmophilia treated by Chloride of Calcium Internally and Adrenalin Locally. Short Paper: Mr. W. J. May: New Apparatus for Rapidly and Accurately obtaining desired Quantities of Mercury and Alloy Filings by Measurement.

TUESDAY (26th).—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Paper:—Prof. E. A. Schäfer: The Phenomena attending Death from Drowning, and the Means of Promoting Resuscitation in the Apparently Drowned (illustrated by epidiascope).

EPIDEMIOLOGICAL SOCIETY (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Mr. Jonathan Hutchinson: The Etiology of Leprosy.

WEDNESDAY (27th).—DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND, (20, Hanover-square, W.).—4.30 P.M. Annual General Meeting and Conference. Address: Dr. Corlett (Ohio, U.S.A.): Small-pox (illustrated with lantern slides).

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (25th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. A. Whitfield: Clinique. (Skin.) 5.15 P.M. Dr. G. Newman: Food Poisoning.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Davis: Diseases of the Kidney (continued).

TUESDAY (26th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. R. L. Bowles: Clinique. (Medical.) 5.15 P.M. Dr. W. Bruce: Sciatica.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. C. Williams: High Frequency Currents.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Mr. Ballance: Surgery of the Nervous System.

WEDNESDAY (27th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. A. H. Tubby: Clinique. (Surgical.) 5.15 P.M. Dr. G. Newman: Milk Epidemics.

POST GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. R. H. Cole: Mania.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. J. K. Fowler: On the Diagnosis of Intrathoracic Tumours (opening lecture of the summer session).

THURSDAY (28th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. W. Bruce: Clinique. (Sciatica.) 5.15 P.M. Dr. C. T. Williams: The Diagnosis of Pulmonary Tuberculosis.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Treatment of some Injuries and Emergencies.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (7, Fitzroy-square, W.).—4 P.M. Dr. J. F. Little: The Prevention of Consumption. (Post-Graduate Course.)

CHARING CROSS HOSPITAL.—4 P.M. Dr. Abercrombie: Medical Cases. (Post-Graduate Course.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Voelcker: Chorea.

GUY'S HOSPITAL MEDICAL SCHOOL—UNIVERSITY OF LONDON (Physiological Theatre).—4 P.M. Dr. E. W. Ainley Walker: The Experimental Pathology and Therapy of Typhoid Infection. (Gordon Lecture.)

FRIDAY (29th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. J. Horne: Clinique. (Throat.) 5.15 P.M. Dr. S. Taylor: Parasites of the Gastro-intestinal Canal.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Beddard: The Physiology and Pathology of the Ductless Glands.

ROYAL INSTITUTION OF GREAT BRITAIN (Albemarle-street, W.).—9 P.M. H.S.H. Albert, Prince of Monaco: The Progress of Oceanography.

SATURDAY (30th).—ROYAL INSTITUTION OF GREAT BRITAIN (Albemarle-street, W.).—3 P.M. Prof. S. P. Thompson: The "De Magnete" and its Author. (I. The Book.)

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(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 21st, 1903.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
May 15	30·14	S.W.	...	99	61	52	51	56	Cloudy
,, 16	30·20	S.W.	...	99	57	46	49	52	Cloudy
,, 17	29·76	W.	0·13	106	56	47	46	48	Cloudy
,, 18	30·09	N.	0·38	89	56	44	45	48	Overcast
,, 19	30·02	S.	...	111	63	45	47	52	Hazy
,, 20	29·94	S.W.	...	102	67	52	53	57	Overcast
,, 21	30·16	W.	...	117	70	50	52	57	Fine

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